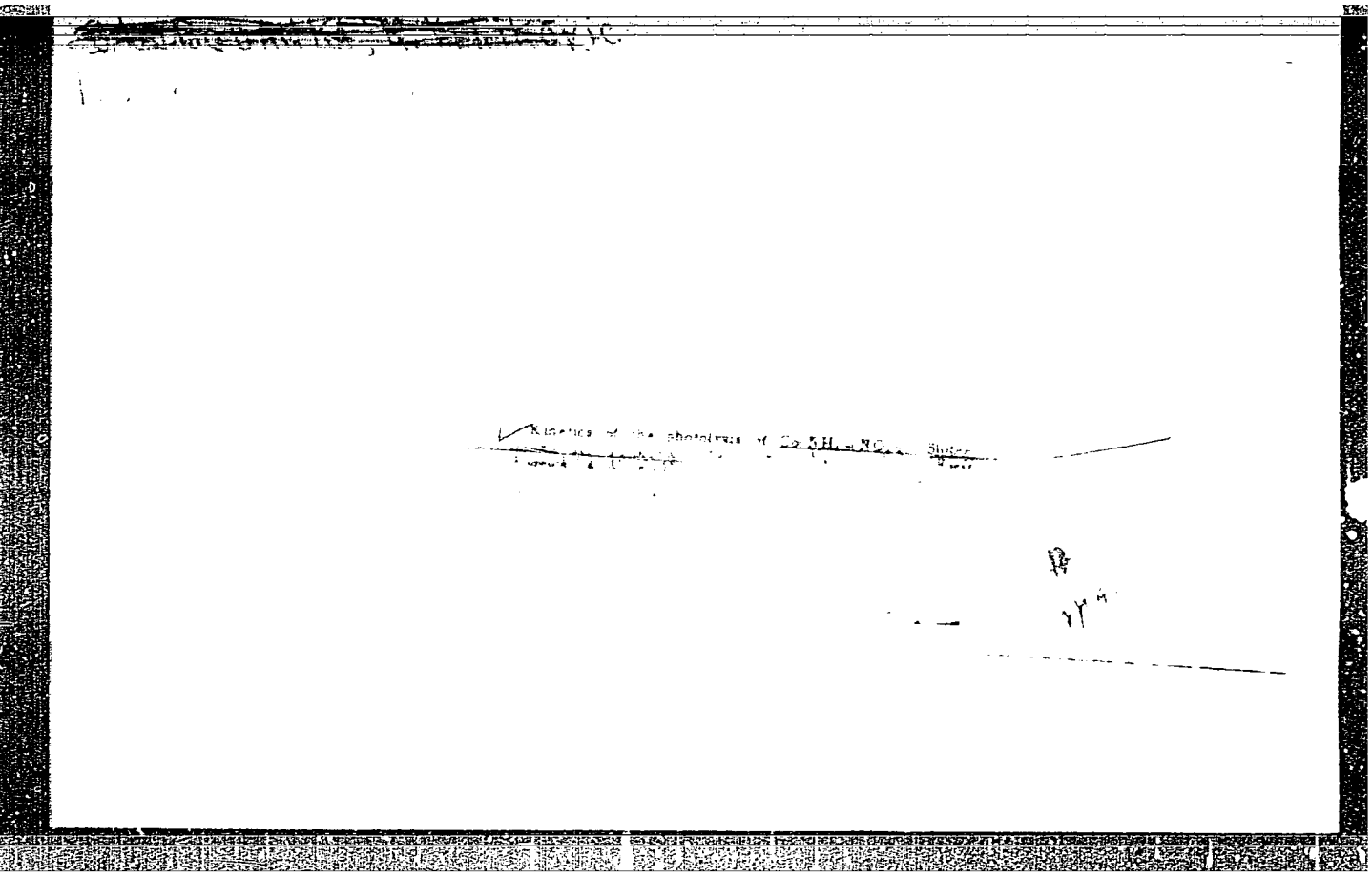


VELIKOVICH, L., kand. istoricheskikh nauk

Religion and war. Komm. Vooruzh. Sil 4 no.15:15-20 Ag '64.
(MIRA 17:10)

VELIKOVICH, L.I.

A book on the Vatican ("Vatican; religion, finance and politics" by I. Lavretskii. Reviewed by L.I. Velikovich). Nauka i zhizn' 25 no.1: 52 Ja '58. (MIRA 11:3)

(Catholic church)
(Lavretskii, I.)

VELIKOVSKAYA, E.M.

Structual-facies Silurian zones in the northwestern slope of the Chingiztau. Vest. Mosk. un. Ser. 4: Geol. 20 no.3:32-36 My-Je '65. (MIRA 18:7)

1. Kafedra istoricheskoy i regional'noy geologii Moskovskogo universiteta.

VELIKOVSKAYA, E.M.; VEYNBEN, A.B.; VERGUNOV, G.P.; APRODOV, V.A.; LYUSTIKH, Ye.N.; LIPOVETSKIY, I.A.; ROMASHOV, A.N.; FEL'DMAN, V.I.; SAVOCHKINA, Ye.N.; GENDLER, V.Ye.; ROMENSON, B.M.; DOBROKHOTOVA, Ye.S.; LYUBIMOVA, L.V.; KHMARA, A.Ya.; VESELOVSKAYA, M.M.; KUDRIN, L.N.; CHERNIKOV, O.A.; SOROKIN, V.S.; IL'IN, A.N.; FLOROVSKAYA, V.N.; ZEZIN, R.B.; TEPLITSKAYA, T.A.; BRUSILOVSKIY, S.A.; KISSIN, I.G.; CHIZHOVA, N.I.; PAVLOVA, O.P.; SHUTOV, Yu.I.

Supplements. Biul. MOIP. Otd. geol. 39 no.4:155 Jl-Ag '64.
(MIRA 17:10)

30(12) SOV/25-59-4-20/44

AUTHOR: Velikovich, L.N., Candidate of Historical Sciences

TITLE: Advocates of Atomic Armament (Propovedniki atomnogo vooruzheniya)

PERIODICAL: Nauka i zhizn', 1959, Nr 4, pp 45-49 (USSR)

ABSTRACT: This is an anti-religious article criticizing the favorable attitude of the Church in capitalist countries towards atomic armament. There are 5 drawings.

Card 1/1

VELIKOVSKAYA, M.M.; BAN'KOVSKIY, A.I.

Method for a quantitative determination of nicotinic acid in "KN" tablets. Trudy VILAR no. 11:288-295 '59. (MIRA 14:2)
(NICOTINIC ACID)

VELIKOVSKAYA, N.A.

TSETLIN, B.L.; GAVRILOV, V.I.; VELIKOVSKAYA, N.A.; KOCHKIN, V.V.

Device for studying thermomechanical characteristics of polymers. Zav.lab. 22 no.3:352-355 '56. (MIRA 10:5)

1.Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR.
(Polymers)

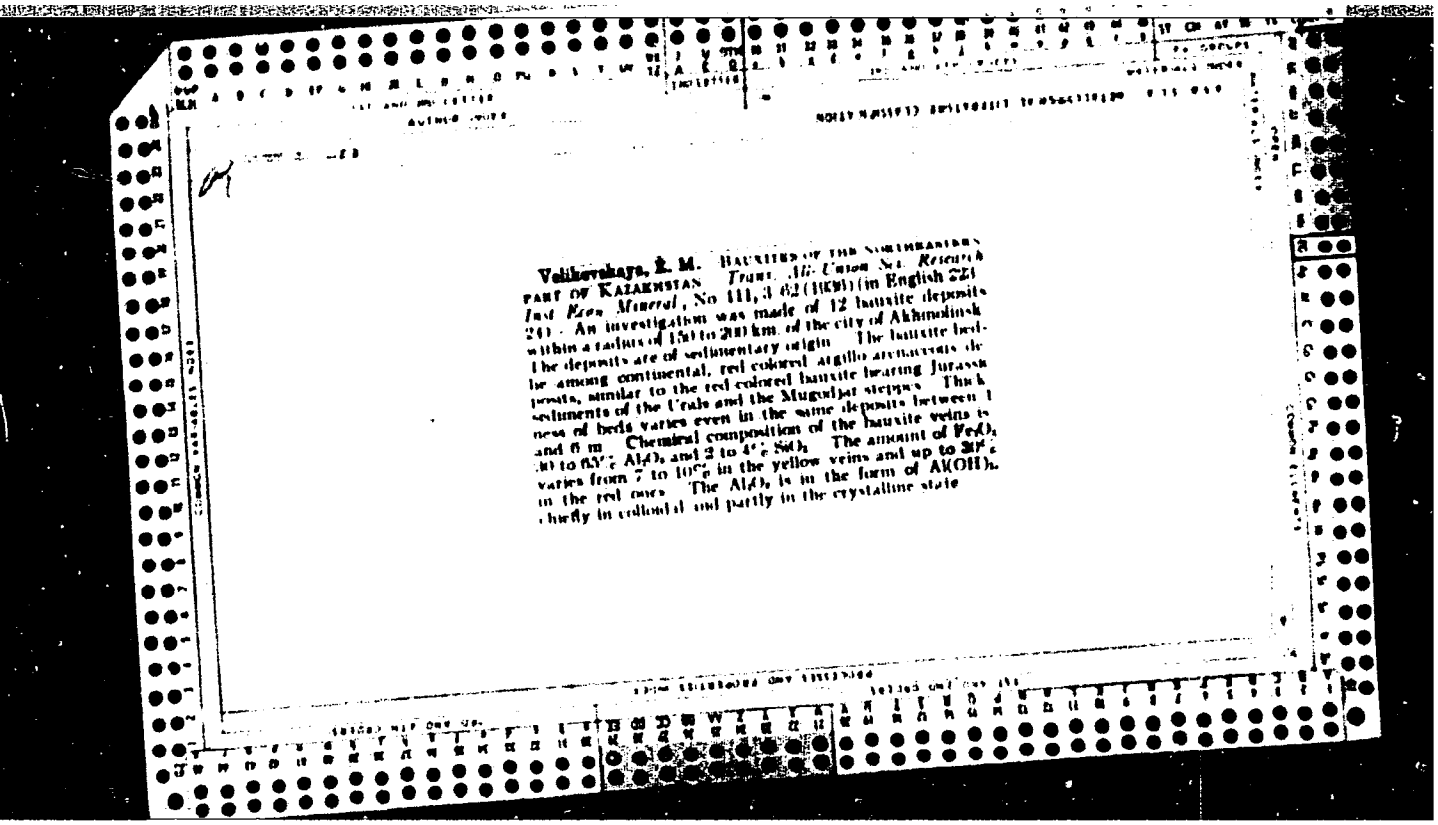
BIRYUKOVA, Zinaida Ivanovna; VELIKOVSKAYA, P.A., red.; MANINA, M.P., tekhn. red.

[Higher nervous activity in athletes; study of the typological characteristics of the nervous system] Vysshaia nervnaia deiatel'nost' sportsmenov; issledovanie tipologicheskikh osobennostei nervnoi sistemy. Moskva, Gos. izd-vo "Fizkul'tura i sport," 1961. 290 p. (MIRA 14:10)
(NERVOUS SYSTEM) (ATHLETES)

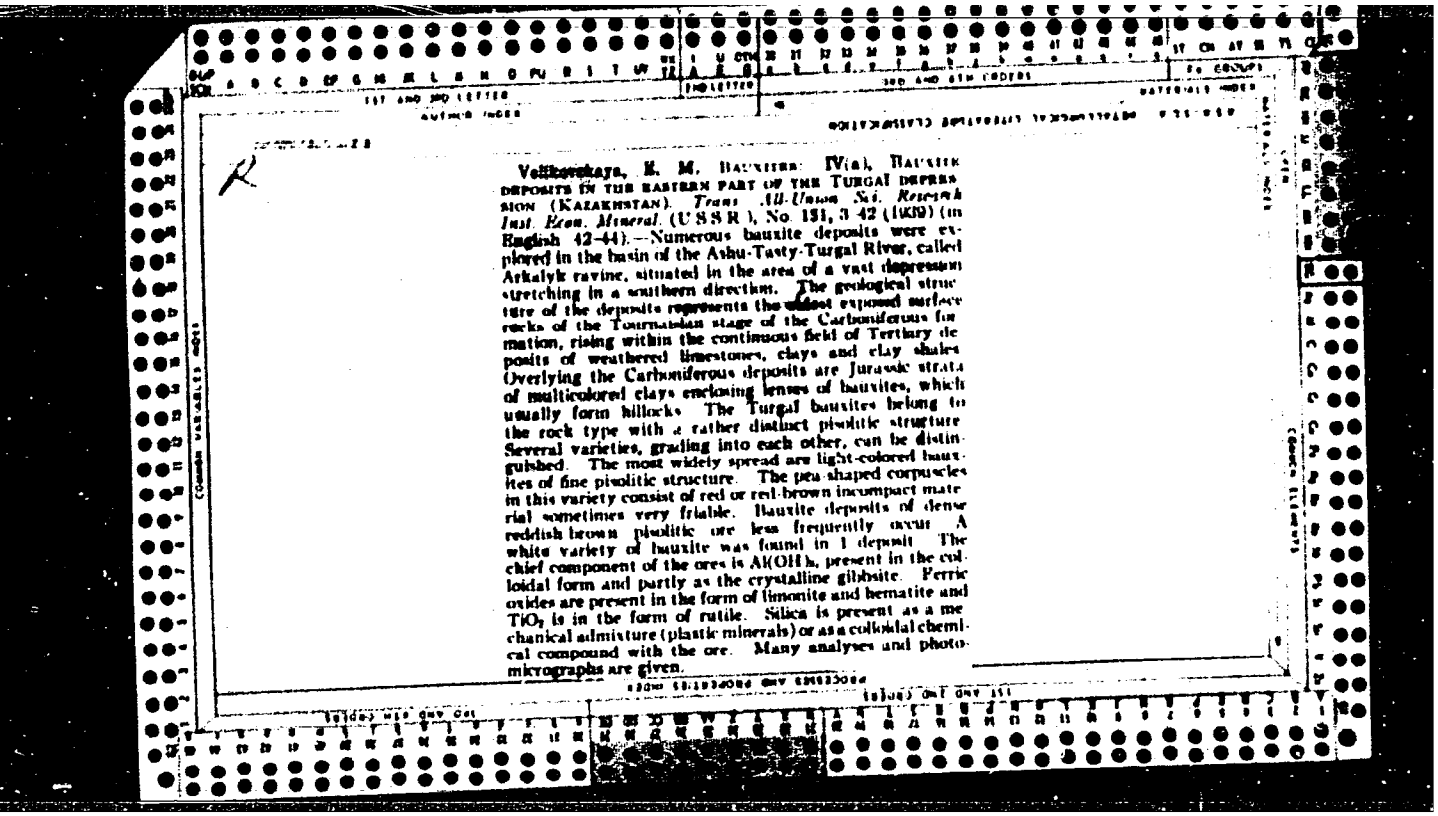
LETUNOV, Serafim Petrovich, prof.; MOTYLYANSKAYA, Rakhil' Yefimovna; GRAYEVSKAYA, Nina Danilovna; VELIKOVSKAYA, P.A., red.; SHPEKTOROVA, Ye.I., tekhn.red.

[Methods for the observation of athletes in connection with the training of doctors; a textbook for doctors] Metodika vrachebno-pedagogicheskikh nabliudenii za sportsmenami; posobie dlia vrachei. Pod obshchei red. S.P.Letunova. Moskva, Izd-vo "Fizkul'tura i sport," 1962. 399 p. (MIRA 15:5)

(SPORTS MEDICINE)



Velikovskaya, L. M. BAUXITES OF THE NORTHERN PART OF KAZAKHSTAN *Trans. All-Union Sci. Research Inst. Res. Mineral*, No 111, 3-82 (1939) (in English 221-241). An investigation was made of 12 bauxite deposits within a radius of 150 to 200 km. of the city of Akhmolinsk. The deposits are of sedimentary origin. The bauxite bed-lie among continental, red colored argillo-arenaceous de-posits, similar to the red colored bauxite bearing Jurassic sediments of the Urals and the Mugudjar steppes. Thick-ness of beds varies even in the same deposits between 1 and 6 m. Chemical composition of the bauxite veins is 30 to 65% Al_2O_3 and 2 to 4% SiO_2. The amount of Fe_2O_3 varies from 7 to 10% in the yellow veins and up to 30% in the red ones. The Al_2O_3 is in the form of $Al(OH)_3$, chiefly in colloidal and partly in the crystalline state.



Velikovskaya, E. M. Bauxites: IV(a), Bauxite deposits in the eastern part of the Turgai depression (Kazakhstan). *Trans. All-Union Sci. Research Inst. Econ. Mineral.* (U S S R), No. 131, 3-42 (1939) (in English 42-44).—Numerous bauxite deposits were explored in the basin of the Ashu-Tasty-Turgai River, called Arkalyk ravine, situated in the area of a vast depression stretching in a southern direction. The geological structure of the deposits represents the oldest exposed surface rocks of the Tournaisian stage of the Carboniferous formation, rising within the continuous field of Tertiary deposits of weathered limestones, clays and clay shales. Overlying the Carboniferous deposits are Jurassic strata of multicolored clays enclosing lenses of bauxites, which usually form hillocks. The Turgai bauxites belong to the rock type with a rather distinct pisolitic structure. Several varieties, grading into each other, can be distinguished. The most widely spread are light-colored bauxites of fine pisolitic structure. The pea-shaped corpuscles in this variety consist of red or red-brown incompact material sometimes very friable. Bauxite deposits of dense reddish brown pisolitic ore less frequently occur. A white variety of bauxite was found in 1 deposit. The chief component of the ores is $Al(OH)_3$, present in the colloidal form and partly as the crystalline gibbsite. Ferric oxides are present in the form of limonite and hematite and TiO_2 is in the form of rutile. Silica is present as a mechanical admixture (plastic minerals) or as a colloidal chemical compound with the ore. Many analyses and photomicrographs are given.

VELIKOVSKAYA, Ye. M.

USSR/Geology

Card 1/1 Pub. 22 - 29/47

Authors : Velikovskaya, Ye. M.

Title : Red color [illegible]

Periodical : Dok. AN SSSR 100/6, 1141-1144, Feb 21, 1955

Abstract : The discovery of [illegible] in various [illegible].

Institution: .....

Presented by: Academician N. M. Strakhov, November 24, 1954

SOV/14-57-12-25518

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 12, pp 23-24 (USSR)

AUTHOR: Velikovskaya, Ye. M.

TITLE: The Genesis of Some Continental Pliocene and Quaternary Deposits in the Zaysan Depression (O genezise nekotorykh tipov kontinental'nykh pliotsenovykh i chetvertichnykh otlozheniy Zaysanskoy kotloviny)

PERIODICAL: Byul. Komis. po izuch. chetvertichn. perioda, AN SSSR, 1957, Nr 21, pp 47-57

ABSTRACT: The author analyzed material which she had collected in 1945 and in 1953 in the southeastern part of the Zaysan depression. This analysis enabled her to determine more accurately the genesis and stratigraphical position of various Quaternary and Pliocene formations in this region. She also showed that the deposits which V. P. Nekhoroshev assumed to be glacial are

Card 1/2

The Genesis of Some Continental Pliocene (Cont.) SOV/14-57-12-25518

actually of various origins and ages. The surface rocks resemble glacial formations superficially, but their physical disposition, their stratigraphical position, their interrelationship with other deposits of the Quaternary age, and also the history of formation of the Saur and Saykan Ranges lead the author to believe that these formations are of a "proluvial", flood origin. She does not consider that either the most ancient Quaternary glaciers or the more recent ones descended into the Zaysan depression. No traces of Quaternary deposits are found in the southern part of this region. A bibliography of 12 titles is included.

Card 2/2

T. R.

VELIKOVSKAYA, Ye.M.

Basic characteristics of the structure of the continental Neogene sediments of the northern foothills in the western part of the Caucasus. Biul. MOIP. Otd. geol. 39 no.2:52-69 Mr-Ap '64.
(MIRA 19:1)

VELIKOVSKAYA, Yevgeniya Markovna; BOGDANOV, A.A., otv. red.

[Pliocene sediments of the southwestern Altai and the Zaysan Depression] Pliotsenovye otlozheniia IUgo-Zapadnogo Altaia i Zaisanskoi kotloviny. Moskva, Izd-vo Mosk. univ., 1964. 79 p. (MIRA 18:5)

VELIKOVSKAYA, Ye. M.; NAYDINA, N. N.

Some recent data on continental Upper Pliocene deposits of the western Kuban trough. Dokl. AN SSSR 147 no.4:889-892 D '62. (MIRA 16:1)

1. Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova. Predstavleno akademikom Yu. A. Orlovym.

(Kuban Valley—Geology, Stratigraphic)

BROD, I.O., prof., doktor geol.-miner. nauk; VARSANOF'YEVA, V.A., prof., doktor geol.-miner. nauk; VELIKOVSKAYA, Ye.M., prof., doktor geol.-miner. nauk; GORDEYEV, D.I., prof., doktor geol.-miner. nauk; DOBROV, S.A., doktor geol.-miner. nauk [deceased]; KOF, M.I., kand.tekhn.nauk, [deceased]; KUZNICHEVA, Ye.I., mladshiy nauchnyy sotr.; KUZNETSOV, Ye.A., prof., doktor geol.-miner. nauk; LEONOV, G.P., prof., doktor geol.-miner. nauk; MENNER, V.V., dotsent, doktor geol.-miner. nauk; NAZARENKO, I.I., kand. sel'khoz.nauk; POBEDIMSKAYA, Ye.A., assistent; POPOV, S.P., prof., doktor geol.-miner. nauk; SMIRNOV, V.I.; SMIRNOV, N.N., prof., doktor geol.-miner. nauk; SMOL'YANINOV, N.A., prof., doktor geol.-miner. nauk [deceased]; FENIKSOVA, V.V., dotsent, kand.geol.-miner. nauk; SHAFRANOVSKIY, I.I., prof., doktor geol.-miner. nauk; Prinimali uchastiye: BARSANOV , G.P., prof., doktor geol.-miner. nauk; BOKIY, G.B.; GORSHKOV, G.P., prof., doktor geol.-miner. nauk; KUDRYAVTSEV, V.A., prof., doktor geogr. nauk; MARKOV, P.N., dotsent, kand.geol.-miner. nauk; MOROZOV, S.S., prof., doktor geol.-miner. nauk; ORLOV, Yu.A., akademik; SERGEYEV, Ye.M., prof., doktor geol.-miner. nauk; TVALCHRELIDZE, A.A.; GEORGIYEVA, G.I., tekhn. red.

(Continued on next card)

BROD, I.O.—— (continued) Card 2.

[History of geology at Moscow University] Istoriia geologicheskikh nauk v Moskovskom universitete. Pod red. D.I.Gordeeva. Moskva, Izd-vo Mosk. univ., 1962. 351 p. (MIRA 15:7)

1. Moscow. Universitet. Geologicheskiy fakul'tet. 2. Chlen-korrespondent Akademii nauk SSSR (for Smirnov). 3. Chlen-korrespondent Sibirskogo otdeleniya Akademii nauk SSSR (for Bokiy). 4. Deystvitel'nyy chlen Akademii nauk Gruzinskoy SSR (for Tvalchrelidze).
(Moscow University) (Geology—Study and teaching)

VELIKOVSKAYA, Ye.M.; IZRAILEV, V.M.

Structure and origin of the North-Jurassic depression between the valleys of the Kuban-Bolshaya Laba Rivers. Trudy VAGT no.6:128-139 '60. (MIRA 14:3)
(Kuban Valley--Geology)

LEONOV, Georgiy Pavlovich; VELIKOVSKAYA, Ye.M., red.

[Basic problems of the regional stratigraphy of Paleogene sediments in the Russian Platform] Osnovnye voprosy reional'noi stratigrafii paleogenovykh otlozhenii Russkoi plity. Moskva, Izd-vo Mosk. univ., 1961. 552 p. diagrs. (MIRA 14:8)
(Russian Platform--Geology, Stratigraphic)

VELIKOVSKAYA, Ye.M.; KOZHEVNIKOV, A.V.; FOMIN, V.I.

More about the "moraine" near TSebel'da. Vest. Mosk. un. Ser. 4: Geol. 15 no.4:14-20 Jl-Ag '60. (MIRA 13:10)

1. Kafedra istoricheskoy geologii Moskovskogo universiteta.
(Tsebel'da region--Moraines)

VELIKOVSKAYA, Ye.M.; STEKLOV, A.A.

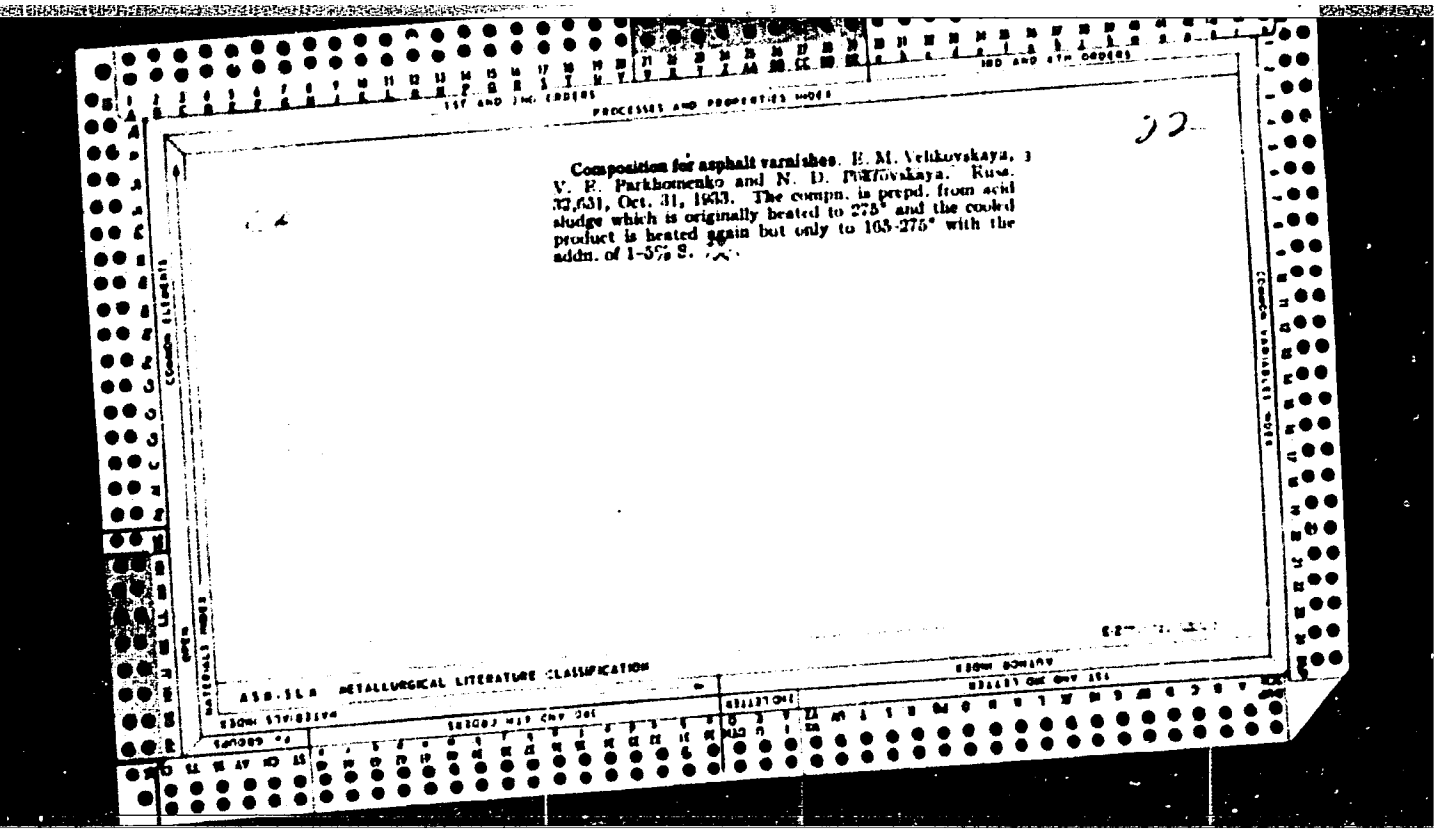
Age and origin of conglomerates in Martano Mountain (Northern Caucasus). Izv. vys. ucheb. zav.; geol. i razv. 3 no.7:127-129 Jl '60. (MIRA 13:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Martano Mountain--Conglomerate)

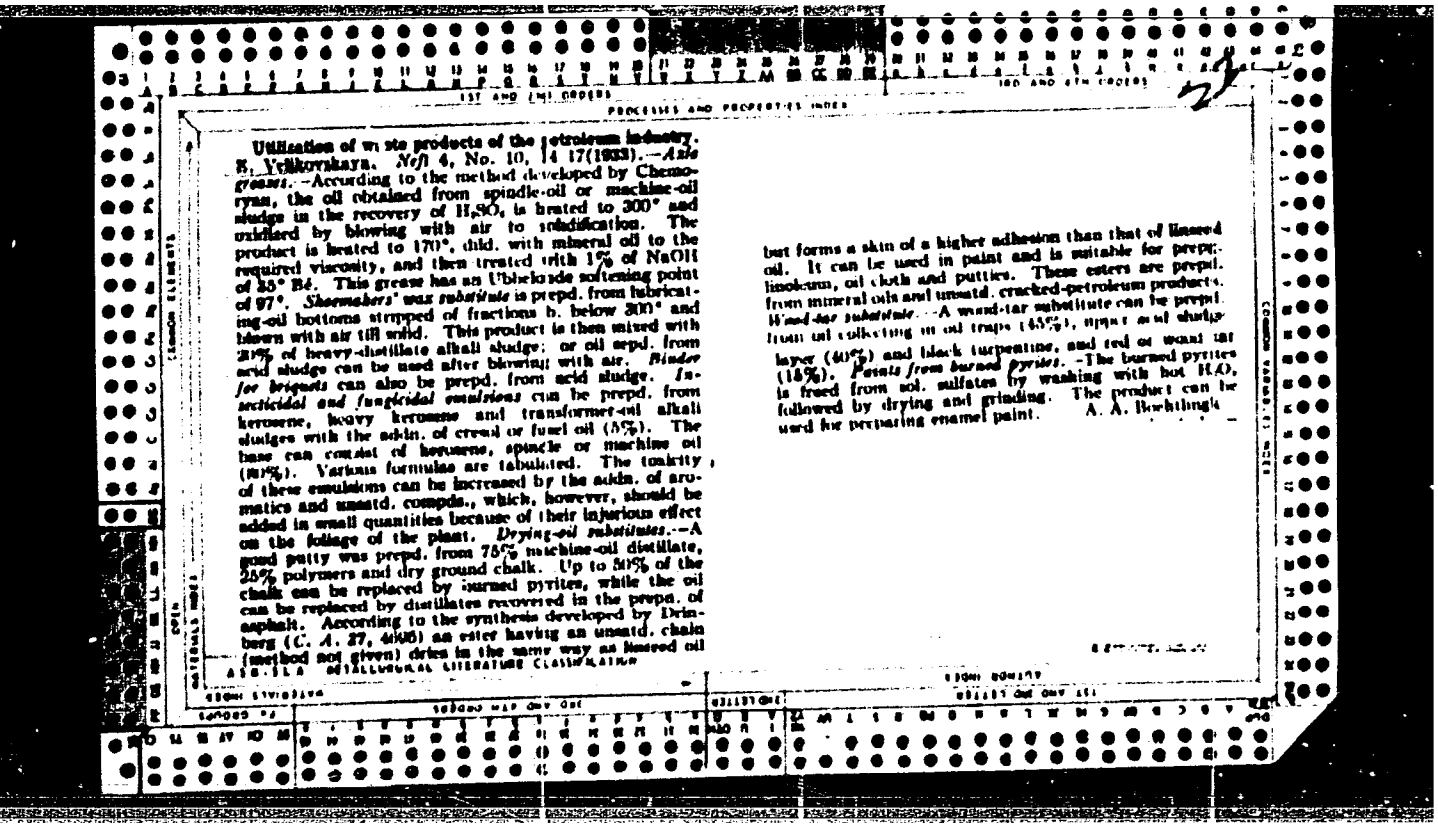
VELIKOVSKAYA, Ye.M.

Pliocene glaciation of the Ossetian plain. Izv.vys.ucheb. zav.; geol. i razv. 2 no.9:45-54 S '59. (MIRA 13:4)

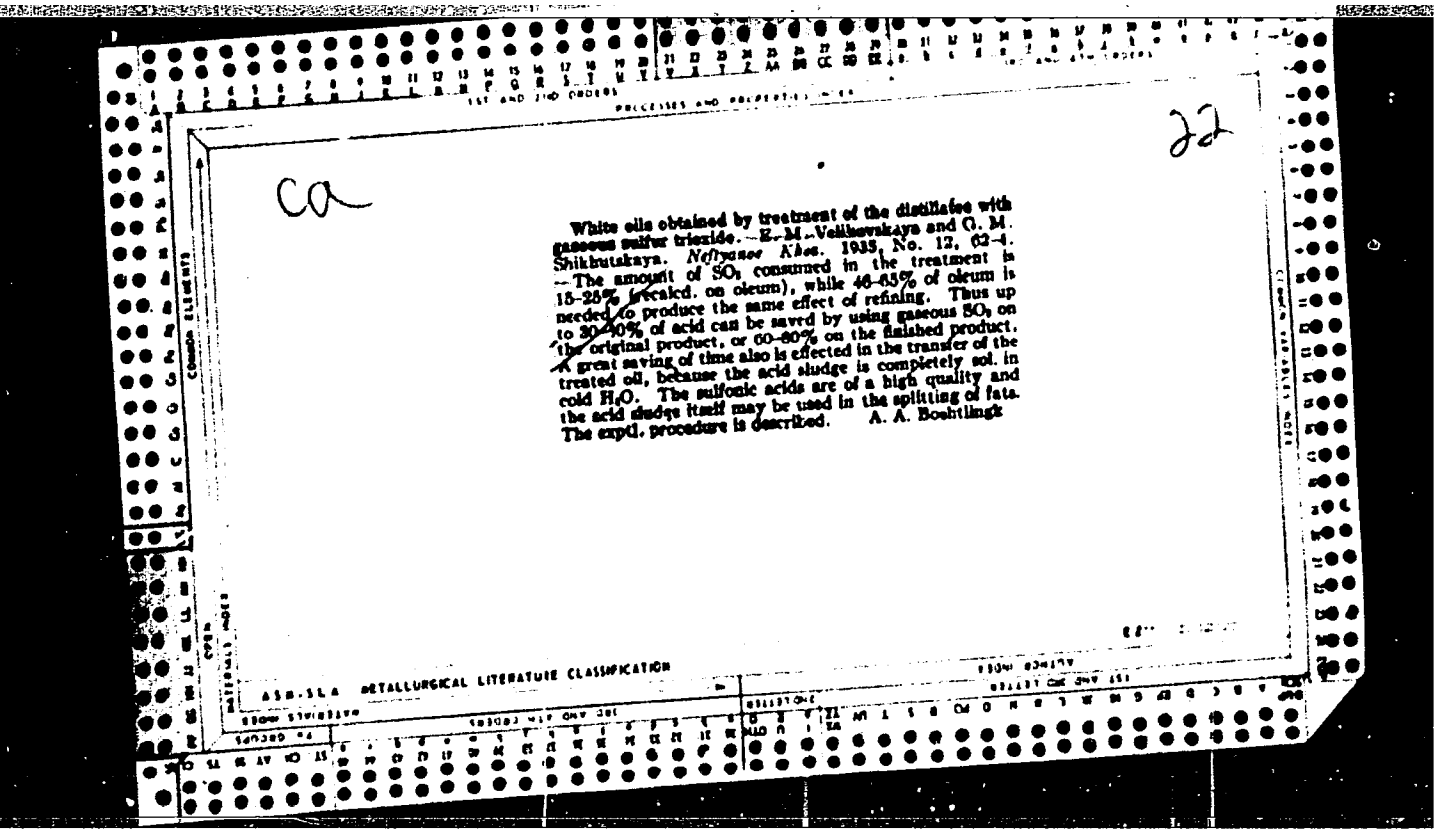
1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Ossetia--Glacial epoch)



Composition for asphalt varnishes. E. M. Velikovskaya, I. V. P. Parkhomenko and N. D. Pikhovskaya. Russ. 32,631, Oct. 31, 1933. The compn. is prepd. from acid sludge which is originally heated to 275° and the cooled product is heated again but only to 165-275° with the addn. of 1-5% S.



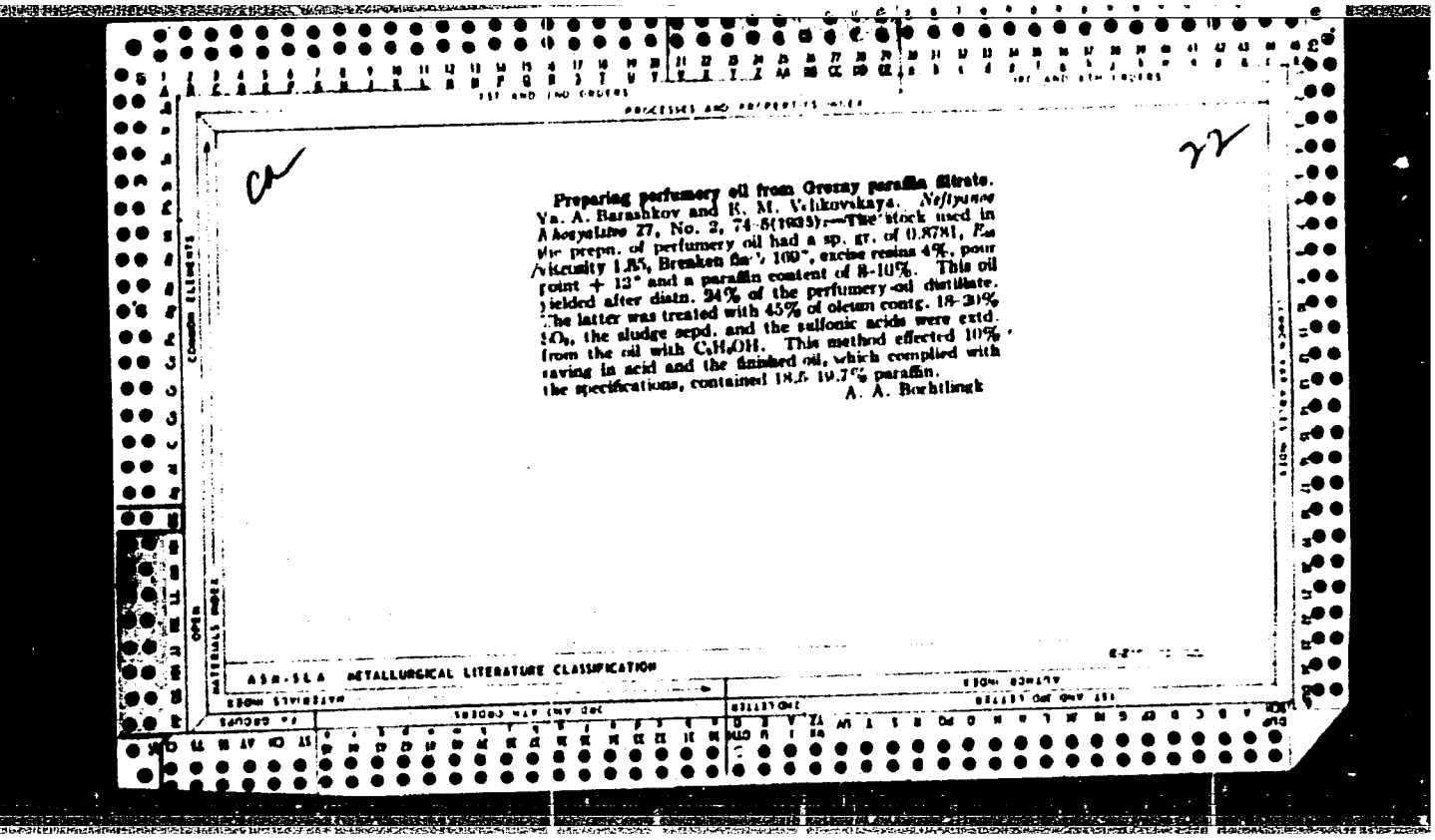
Utilization of waste products of the petroleum industry. E. Yelkovskaya. *Neft* 4, No. 10, 14-17(1933).—*Axle greases.*—According to the method developed by Chemogryan, the oil obtained from spindle-oil or machine-oil sludge in the recovery of H_2SO_4 is heated to 300° and oxidized by blowing with air to solidification. The product is heated to 170°, dild. with mineral oil to the required viscosity, and then treated with 1% of NaOH of 25° Bé. This grease has an Ubbelohde softening point of 97°. *Shoemakers' wax substitute* is prepd. from lubricating-oil bottoms stripped of fractions b. below 300° and blown with air till solid. This product is then mixed with 20% of heavy-distillate alkali sludge; or oil sepd. from acid sludge can be used after blowing with air. *Binder for briquets* can also be prepd. from acid sludge. *Insecticidal and fungicidal emulsions* can be prepd. from kerosene, heavy kerosene and transformer-oil alkali sludges with the addn. of cresol or fuel oil (5%). The base can consist of kerosene, spindle or machine oil (80%). Various formulas are tabulated. The toxicity of these emulsions can be increased by the addn. of aromatics and unsatd. compds., which, however, should be added in small quantities because of their injurious effect on the foliage of the plant. *Drying-oil substitutes.*—A good putty was prepd. from 75% machine-oil distillate, 25% polymers and dry ground chalk. Up to 50% of the chalk can be replaced by burned pyrites, while the oil can be replaced by distillates recovered in the prepn. of asphalt. According to the synthesis developed by Drinberg (*C. A.* 27, 4606) an ester having an unsatd. chain (method not given) dries in the same way as linseed oil but forms a skin of a higher adhesion than that of linseed oil. It can be used in paint and is suitable for preparing linoleum, oil cloth and putties. These esters are prepd. from mineral oils and unsatd. cracked-petroleum products. *Wood-tar substitute.*—A wood-tar substitute can be prepd. from oil collecting in oil traps (45%), upper acid sludge layer (40%) and black turpentine, and red or wood tar (15%). *Paints from burned pyrites.*—The burned pyrites is freed from sol. sulfates by washing with hot H_2O, followed by drying and grinding. The product can be used for preparing enamel paint. A. A. Berthingle



Ca

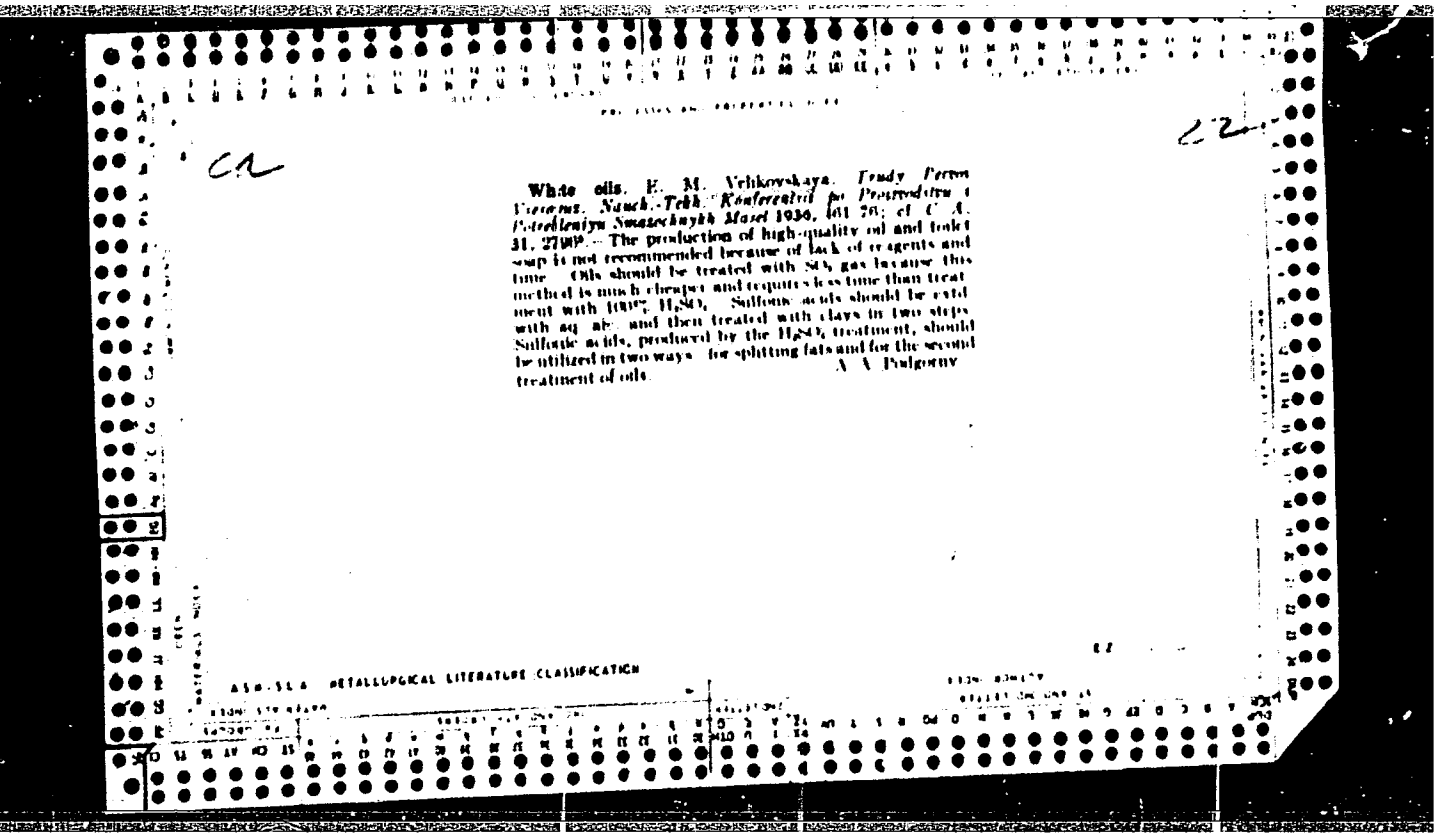
22

White oils obtained by treatment of the distillates with gaseous sulfur trioxide. E. M. Velikovskaya and O. M. Shikhutskaya. *Neftyanoe Khoz.* 1935, No. 12, 62–4. —The amount of SO_3 consumed in the treatment is 15–25% (recalcd. on oleum), while 46–65% of oleum is needed to produce the same effect of refining. Thus up to 30–40% of acid can be saved by using gaseous SO_3 on the original product, or 60–80% on the finished product. A great saving of time also is effected in the transfer of the treated oil, because the acid sludge is completely sol. in cold H_2O. The sulfonic acids are of a high quality and the acid sludge itself may be used in the splitting of fats. The expt. procedure is described. A. A. Boehtlingk

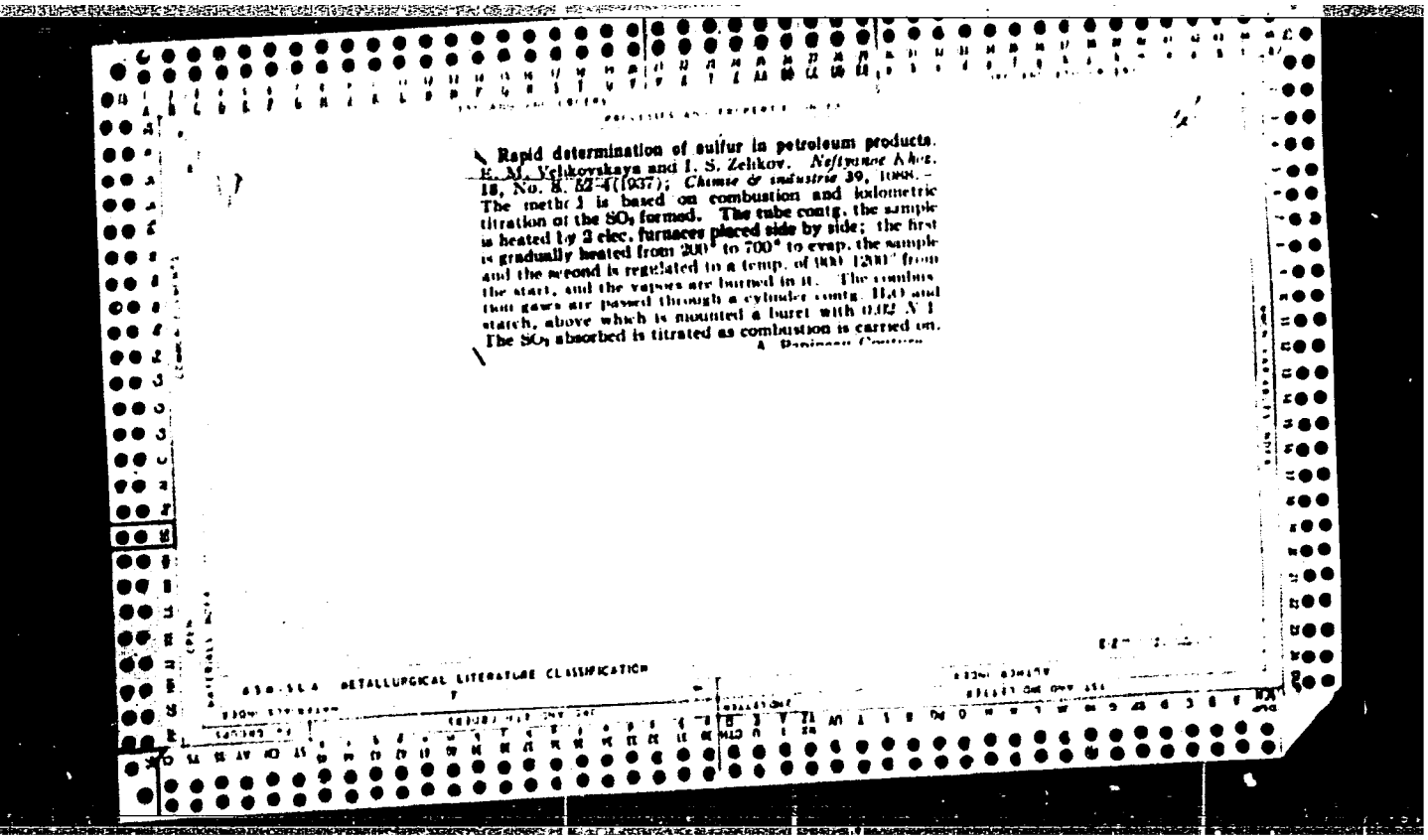


Preparing perfumery oil from Grozny paraffin filtrate. Ya. A. Barashkov and K. M. Velikovskaya. *Neftyanoe Khozyaistvo* 27, No. 3, 74–5(1949).—The stock used in the prepn. of perfumery oil had a sp. gr. of 0.8781, F_{ss} viscosity 1.85, Brenken flash 160°, excise resins 4%, pour point + 12° and a paraffin content of 8–10%. This oil yielded after distn. 24% of the perfumery-oil distillate. The latter was treated with 45% of oleum contg. 18–20% SO_3, the sludge sepd. and the sulfonic acids were extd. from the oil with C_6H_5OH. This method effected 10% saving in acid and the finished oil, which complied with the specifications, contained 18.5–19.7% paraffin.

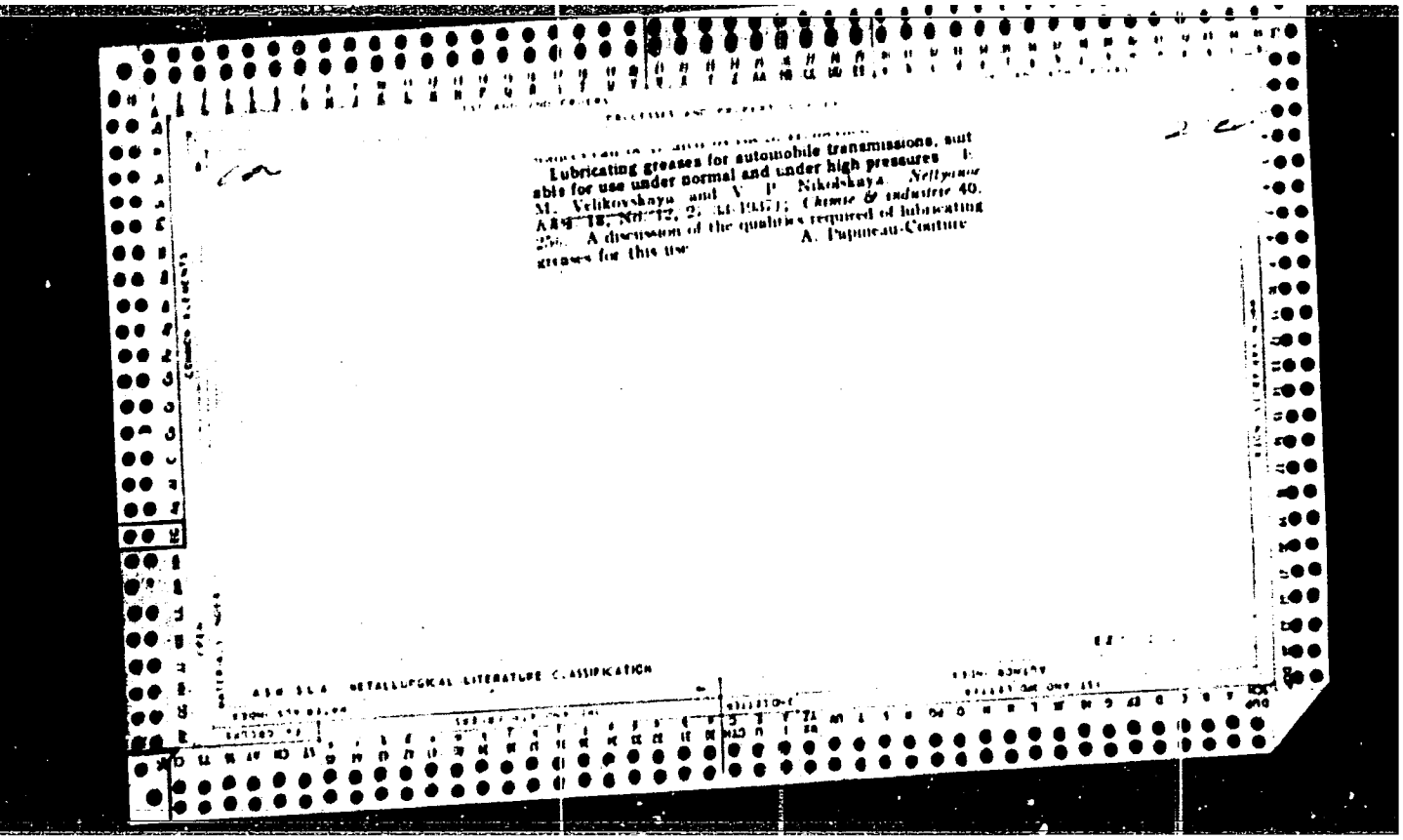
A. A. Berhtlingk



White oils. E. M. Velikovskaya. *Trudy Perm. Vsesoyuz. Nauch.-Tekh. Konferentsii po Pererabotke i Ispolzovaniyu Smazochnykh Masel* 1936, 161-76; cf. *C. A.* 31, 2709⁹.—The production of high-quality oil and toilet soap is not recommended because of lack of reagents and time. Oils should be treated with SO_3 gas because this method is much cheaper and requires less time than treatment with 100% H_2SO_4. Sulfonic acids should be extd. with aq. alc. and then treated with clays in two steps. Sulfatic acids, produced by the H_2SO_4 treatment, should be utilized in two ways: for splitting fats and for the second treatment of oils. A. A. Pulgovny



Rapid determination of sulfur in petroleum products. E. M. Velikovskaya and I. S. Zelikov. *Neftyanoe Khoz.* 18, No. 8, 62-4 (1937); *Chimie & industrie* 39, 1088. — The method is based on combustion and iodometric titration of the SO_2 formed. The tube contg. the sample is heated by 2 elec. furnaces placed side by side; the first is gradually heated from 200° to 700° to evap. the sample and the second is regulated to a temp. of 900-1200° from the start, and the vapors are burned in it. The combustion gases are passed through a cylinder contg. H_2O and starch, above which is mounted a buret with 0.02 *N* I. The SO_2 absorbed is titrated as combustion is carried on.



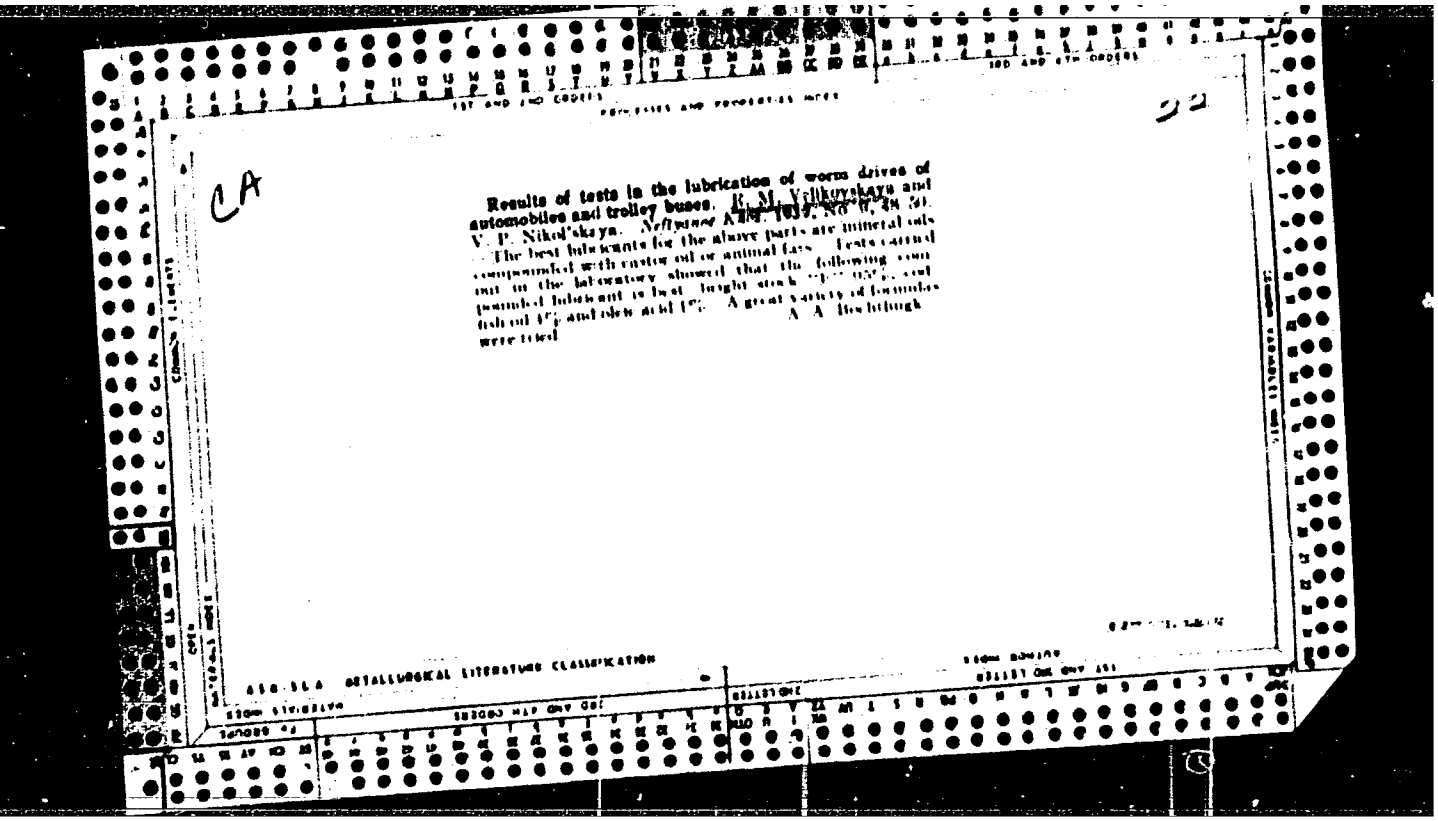
Lubricating greases for automobile transmissions, suitable for use under normal and under high pressures. I. M. Velikovskaya and V. P. Nikolskaya. *Neftyanoe Khoz.* 18, No. 12, 2; *Chimie & industrie* 40, 2[illegible]. A discussion of the qualities required of lubricating greases for this use.

A. Papineau-Couture

CA

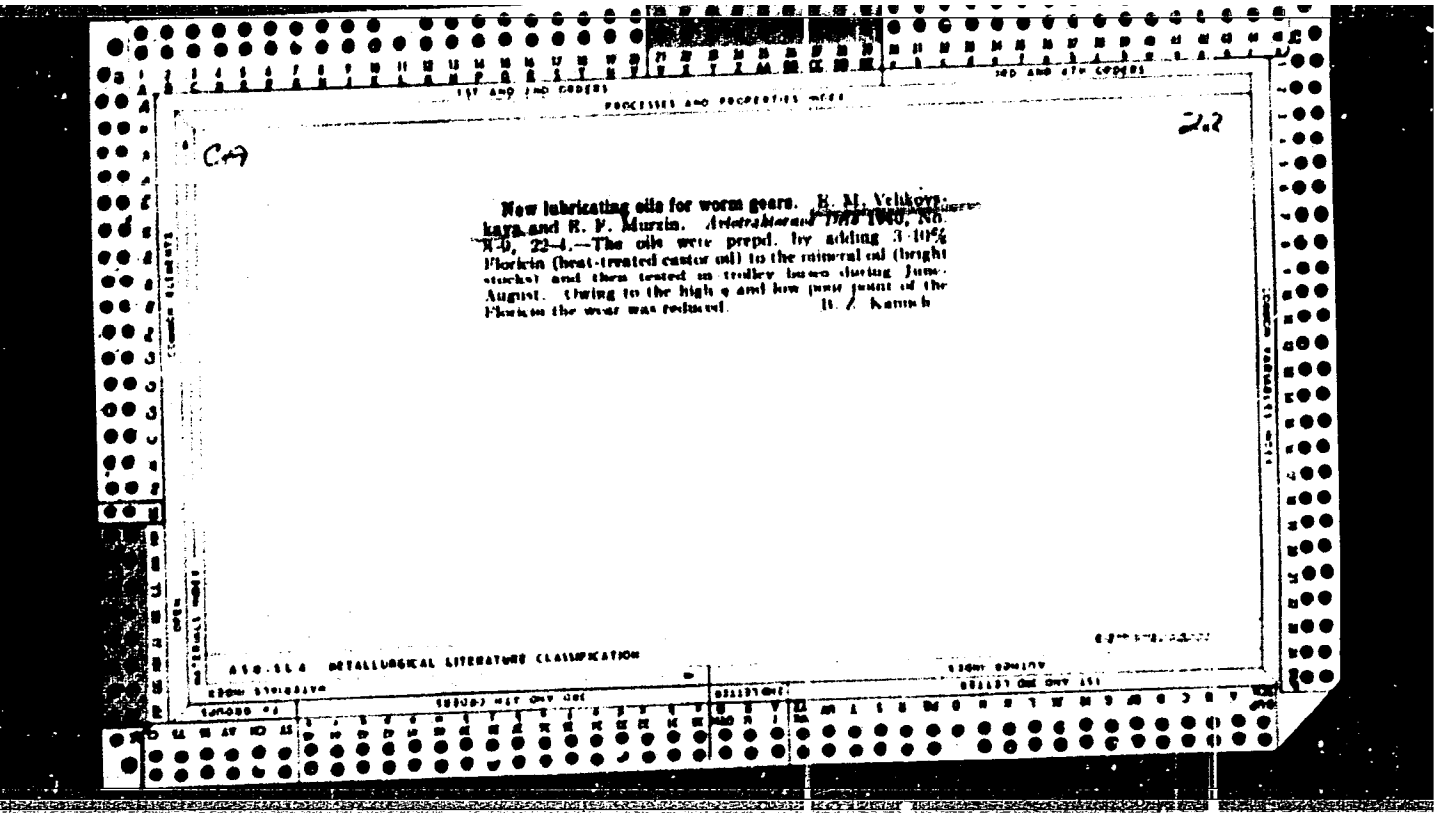
Lubricants for rear-end worm drives. K. M. Veltkov-skaya. *Neftyanoe Khoz.* 1938, No. 2, 19-21.—For rear-end worm drives a mixture of highly refined mineral oils and vegetable or animal fats is best. The following lubricants were prepar for tests to be carried out in the near future: mineral oil + 5-10% vegetable oils, [illegible] mineral oil + 5% American graphite oil [illegible] and the test castor oil. Five references. A. A. B.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



Results of tests in the lubrication of worm drives of automobiles and trolley buses. K. M. Vilkovyskaya and V. P. Nikol'skaya. *Neftyanoe* [illegible]. The best lubricants for the above parts are mineral oils compounded with castor oil or animal fats. Tests carried out in the laboratory showed that the following compounded lubricant is best: [illegible] and fish oil [illegible] and oleic acid [illegible]. A great variety of formulas were tried. A. A. Berlinguh

A58-5L4 METALLURGICAL LITERATURE CLASSIFICATION



New lubricating oils for worm gears. R. M. Velikova-kara and R. F. Murzin. *Avtotraktornoe* [illegible] 1940, No. 8-9, 22-4.—The oils were prepd. by adding 3-10% Florkin (heat-treated castor oil) to the mineral oil (bright stocks) and then tested on trolley buses during June-August. Owing to the high v and low pour point of the Florkin the wear was reduced. [illegible] Kamush

VELIKOVSKAYA, Ye.M.; VELIKOVSKIY, D.S.; PEGANOV, A.A.; DOBRYAKOVA, L.I.; KUROCHKINA, Z.V.; LISOVSKIY, I.I.

Synthetic drying oils. Patent U.S.S.R. 77,050, Dec.31, 1949.
(CA 47 no.19:10244 '53)

VELIKOVSKAYA, Ye.M.

Pliocene red beds and their development in the U.S.S.R., China, and adjacent countries. [Uch.zap.] Mosk.un. no.192:89-112 '61. (MIRA 15:7)

(Rocks, Sedimentary)

VELIKOVSKAYA, Ye.M.; KOZHEVNIKOV, A.V.

Origin of morainelike beds in valleys of the Terek, Gizel'don, and Urukh Rivers. Vest.Mosk.un.Ser. biol., pochv., geol., goeg. 14 no.4:125-134 '59. (MIRA 13:6)

1. Kafedra istoricheskoy i regional'noy geologii Moskovskogo universiteta.
(Terek Valley--Alluvium)

AYZENSHTAYN, P.G.; VELIKOVSKAYA, Ye.M.; GARZANOV, G.Ye.; GRUSHEVENKO, V.I.; STERKHOVA, L.N.

Anastas'evskaya petroleum of the IV horizon as a stock for producing low-viscosity oils. Khim.i tekh.topl.i masel 5 no.2:1-6 F '60. (MIRA 13:6)

1. Neftemaslozavody.
(Krasnodar Territory--Petroleum--Analysis)

VELIKOVSKAYA, Ye.M.

Upper Pliocene continental sediments in the Kuban trough. Biul. MOIP. Otd. geol. 35 no.5:83-96 S-O '60. (MIRA 14:1)
(Kuban--Geology, Stratigraphic)

USSR/Human and Animal Physiology. Blood. Formed Elements of Blood. T-4

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55427.

Author : Velikovskaya, Yu., Mynn, I.
Inst : Moscow Academy of Veterinary Sciences.
Title : A Comparison of Results in Erythrocyte Counts Obtained by Various Methods.

Orig Pub: Sb. nauch. rabot stud. Mosk. vet. akad., 1956, vyp. 3, 190-104.

Abstract: The erythrocytes of horses, cows, dogs, and rabbits were counted after they were diluted in a mixer, and in a test tube according to the method of Nikolayev. Thus, it was demonstrated that when blood was diluted in a test tube, the erythrocyte count was not less accurate than when it was diluted in a mixer. The

Card : 1/2

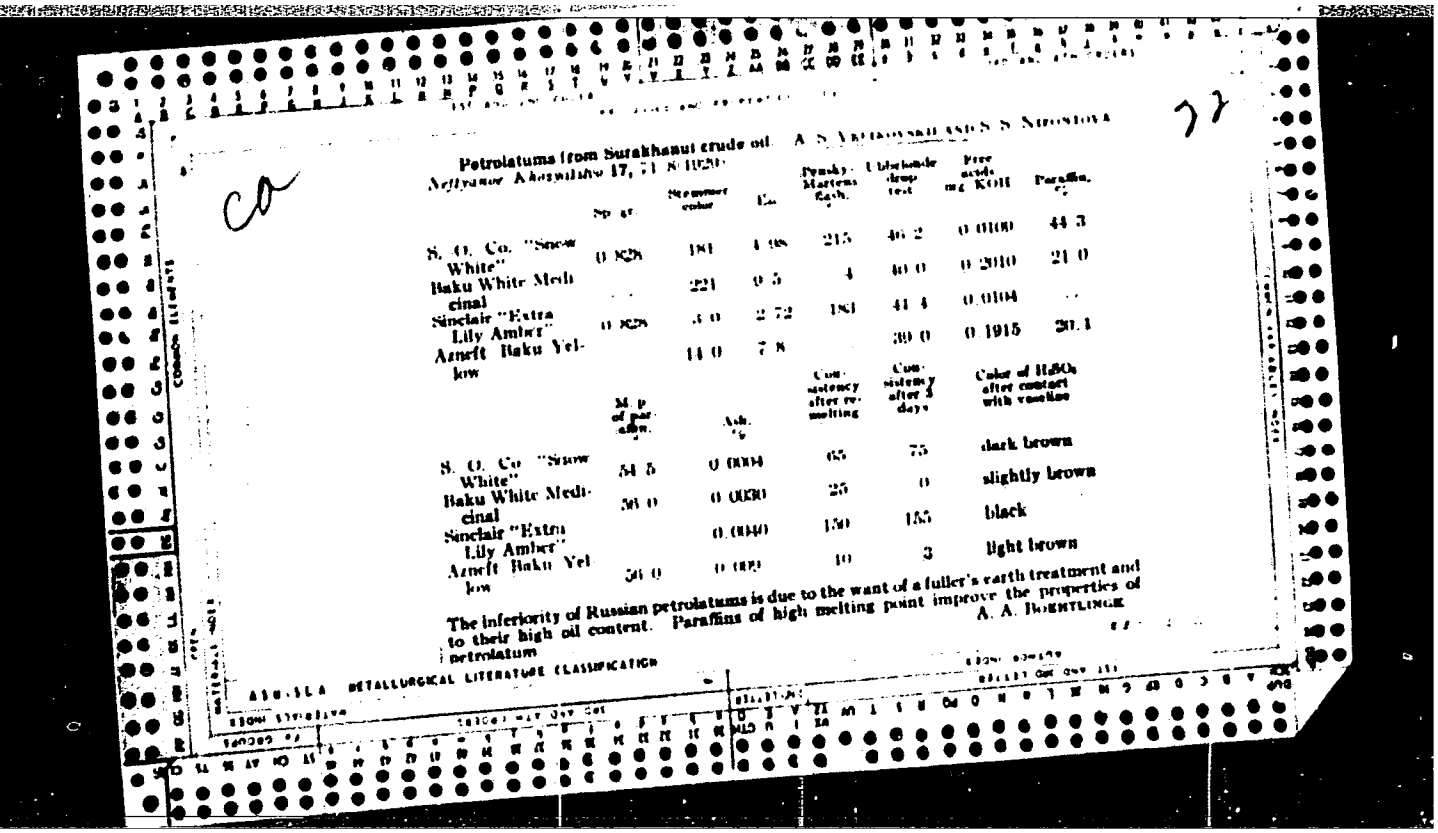
VESELOVA, T.P., kand. veter. nauk; VELIKOVSKAYA, Yu.A., veterinarnyy vrach; GORBATOVA, L.M., biolog.

Role of histamine in the mechanism of the toxic action of carbon tetrachloride in cattle. Trudy VIGIS 10:169-178 '63.

Relation between guanidine and histamine in the toxic process in animals caused by carbon tetrachloride. Ibid.:178-184
(MIRA 17:9)

VESELOVA, T.P., kand. vet. nauk; VOROB'YEV, M.A., mladshiy nauchnyy sotrudnik; DOROSHINA, M.V., mladshiy nauchnyy sotrudnik; VELIKOVSKAYA, Yu.A., vet. vrach; KOSTENKO, T.F., uchenyy zootekhnik

Significance of the injection of hexachloroethane in medicinal form to the cattle with fascioliasis. Trudy VIGIS 11:202-206 '64. (MIRA 18:12)



Petrolatums from Surakhanut crude oil. A. S. Nikolaevskii and S. S. Nikolova

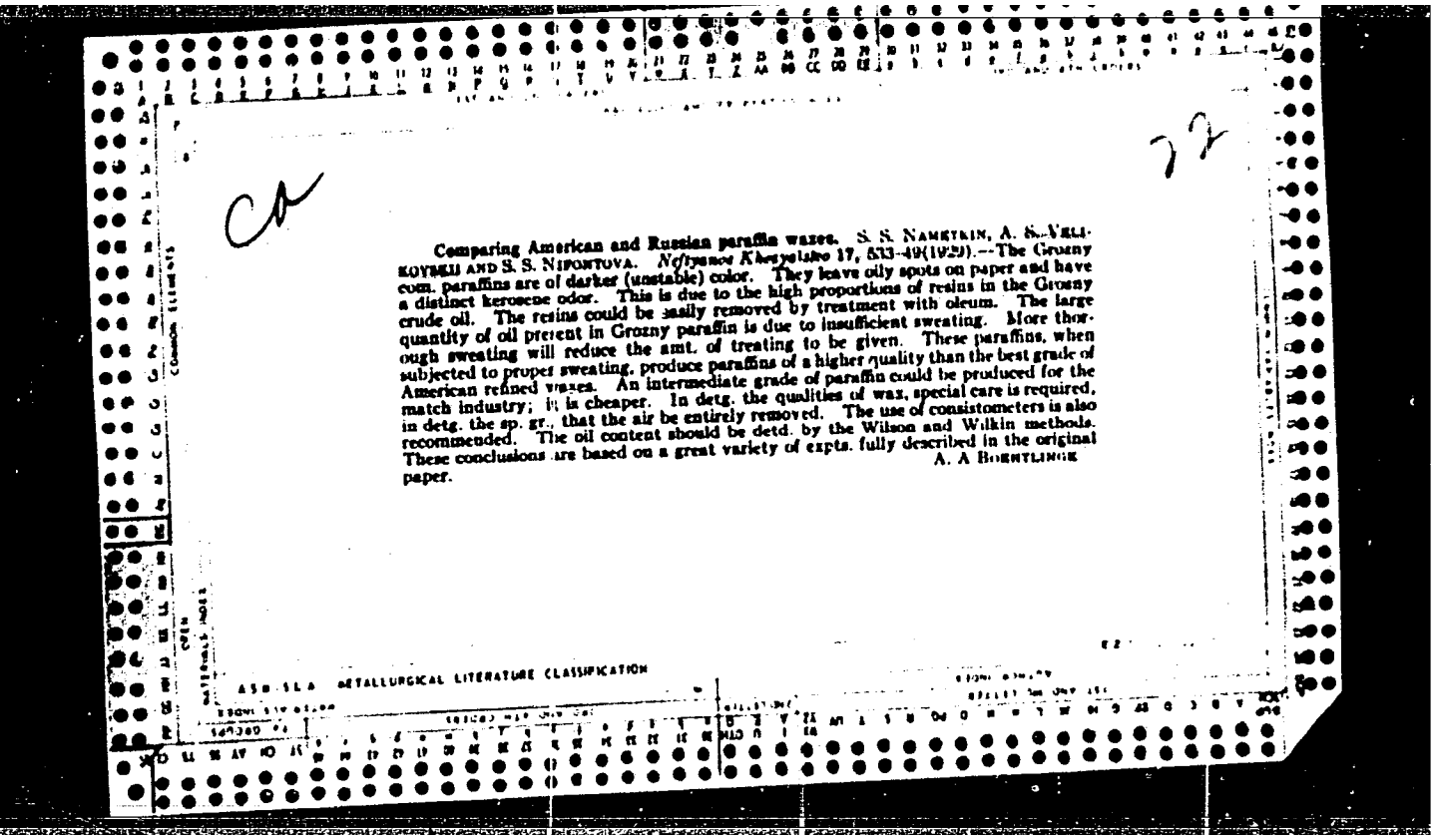
	Sp. gr.	Stammer color	Ex.	Pensky-Martens flash, °	Ubbelohde drop test	Free acids, mg KOH	Paraffin, %
S. O. Co. "Snow White"	0.828	181	4.08	215	46.2	0.0100	44.3
Baku White Medicinal		221	0.5	4	40.0	0.2010	21.0
Sinclair "Extra Lily Amber"	0.828	5.0	2.72	181	41.4	0.0104	
Azneft Baku Yellow		14.0	7.8		39.0	0.1915	20.1

	M. p. of paraffin, °	Ash, %	Consistency after remelting	Consistency after 5 days	Color of H2SO4 after contact with vaseline
S. O. Co. "Snow White"	54.5	0.0004	65	75	dark brown
Baku White Medicinal	56.0	0.0080	25	0	slightly brown
Sinclair "Extra Lily Amber"		0.0040	150	155	black
Azneft Baku Yellow	56.0	0.002	10	3	light brown

The inferiority of Russian petrolatums is due to the want of a fuller's earth treatment and to their high oil content. Paraffins of high melting point improve the properties of petrolatum

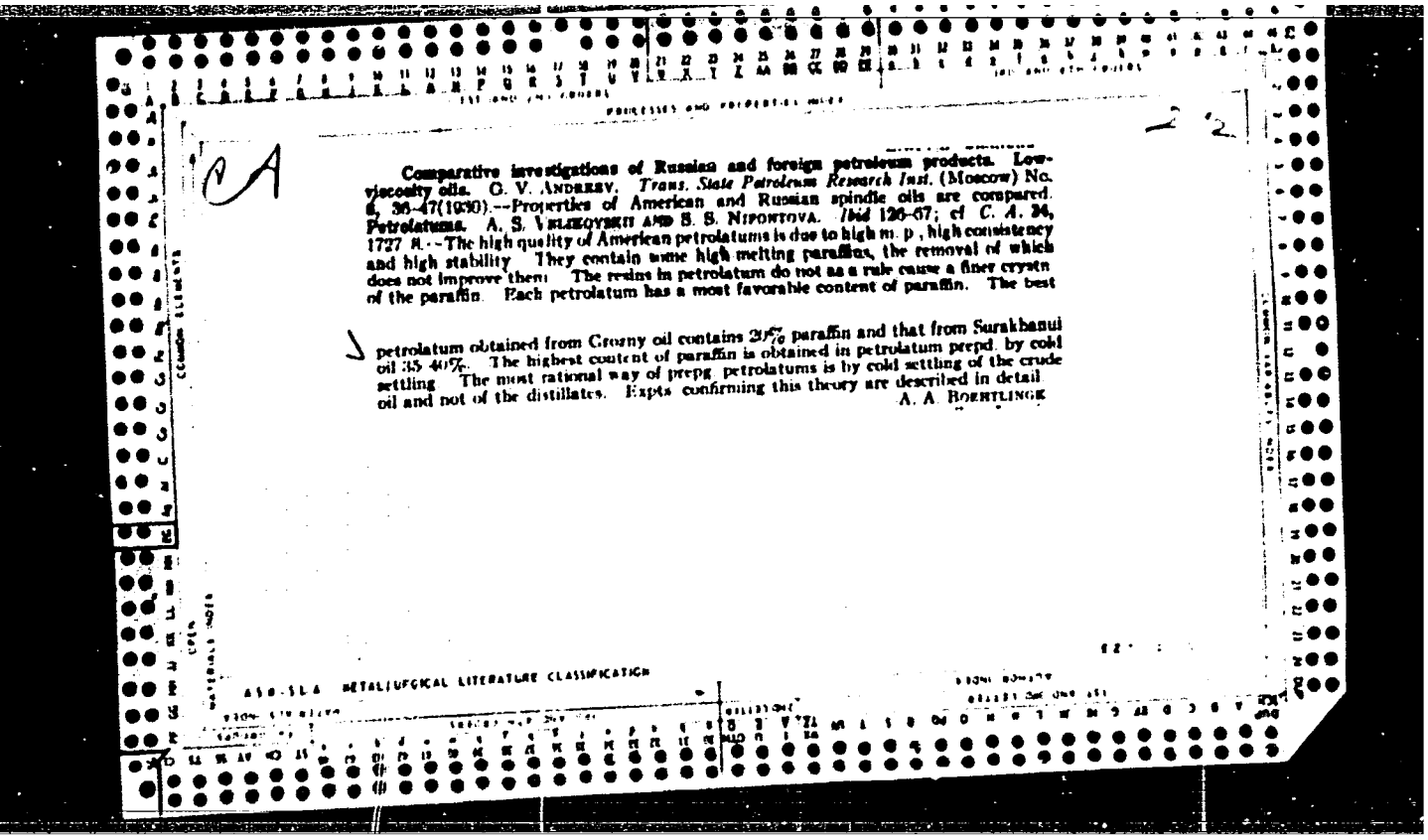
A. A. Boichtlingk

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Comparing American and Russian paraffin waxes. S. S. NAMETKIN, A. S. VELIKOVSKII AND S. S. NIFONTOVA. *Neftyanoe Khozyaistvo* 17, 633-49(1929).—The Grozny com. paraffins are of darker (unstable) color. They leave oily spots on paper and have a distinct kerosene odor. This is due to the high proportions of resins in the Grozny crude oil. The resins could be easily removed by treatment with oleum. The large quantity of oil present in Grozny paraffin is due to insufficient sweating. More thorough sweating will reduce the amt. of treating to be given. These paraffins, when subjected to proper sweating, produce paraffins of a higher quality than the best grade of American refined waxes. An intermediate grade of paraffin could be produced for the match industry; it is cheaper. In detg. the qualities of wax, special care is required, in detg. the sp. gr., that the air be entirely removed. The use of consistometers is also recommended. The oil content should be detd. by the Wilson and Wilkin methods. These conclusions are based on a great variety of expts. fully described in the original paper.

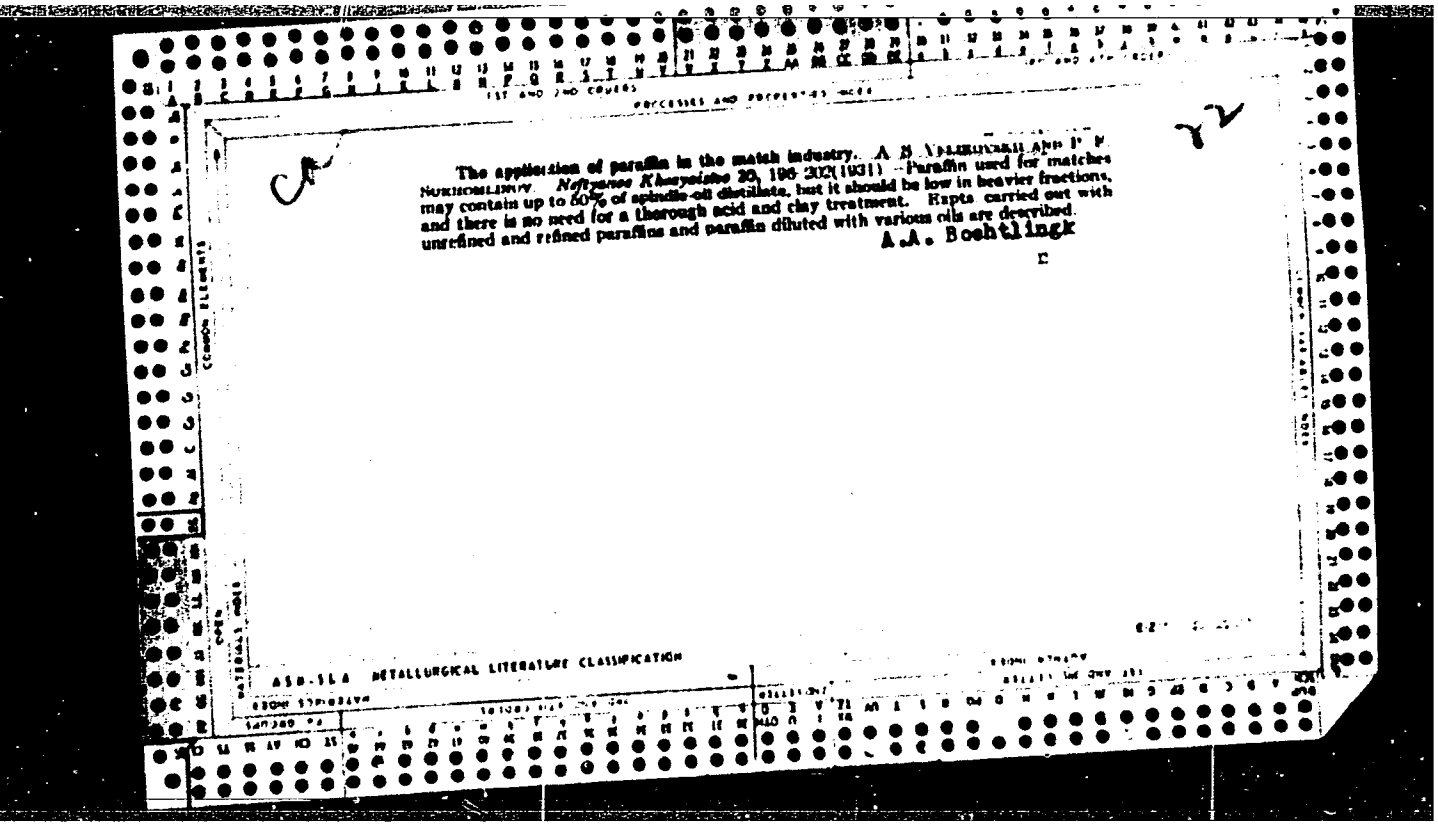
A. A BOENTLINGK



CA

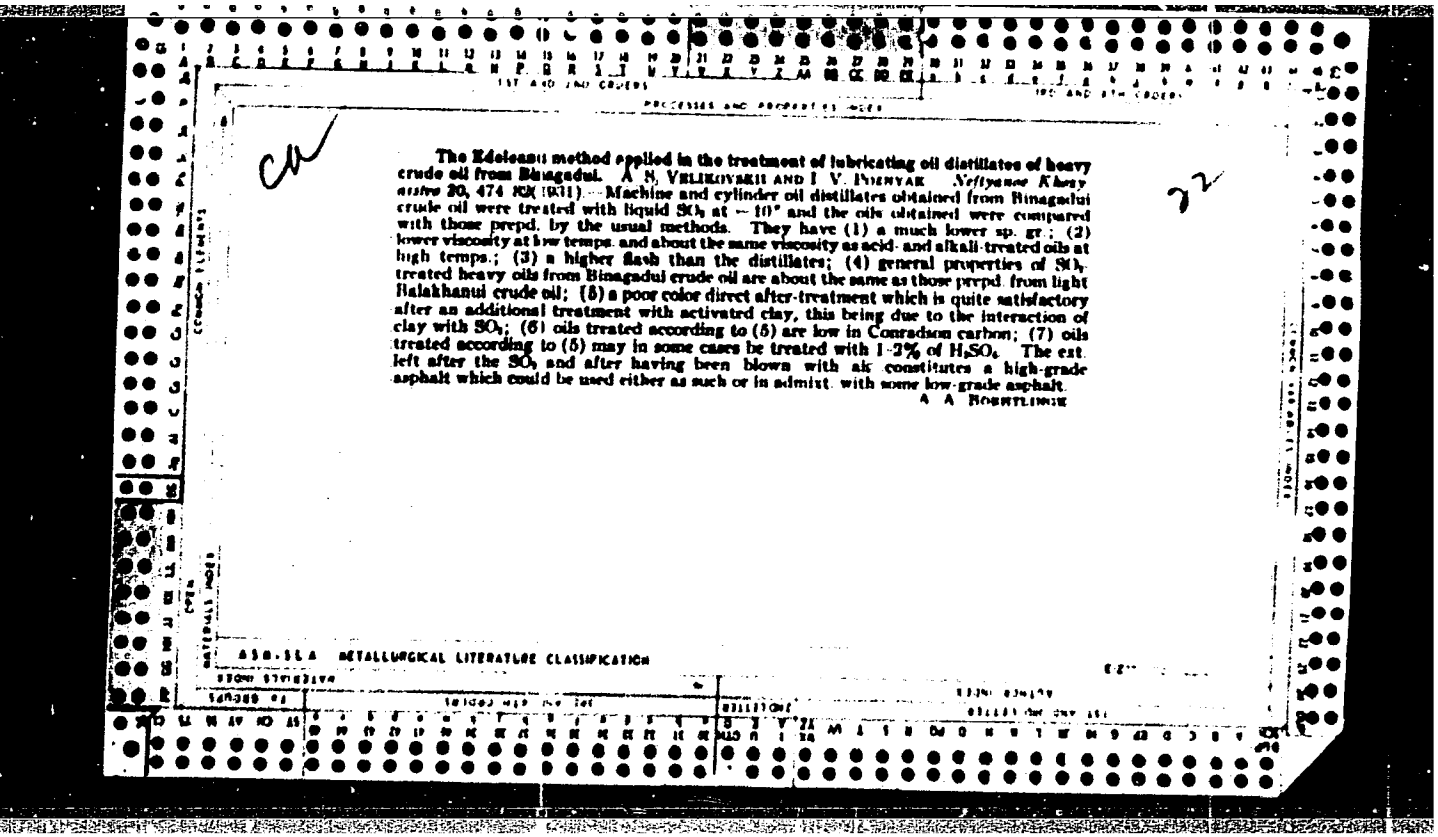
Comparative investigations of Russian and foreign petroleum products. Low-viscosity oils. G. V. ANDREEV. *Trans. State Petroleum Research Inst.* (Moscow) No. 6, 36-47(1930).--Properties of American and Russian spindle oils are compared. **Petrolatums.** A. S. VELICOVSKII AND S. S. NIPOVTOVA. *Ibid* 126-67; cf *C. A.* 24, 1727 8.--The high quality of American petrolatums is due to high m. p., high consistency and high stability. They contain some high melting paraffins, the removal of which does not improve them. The resins in petrolatum do not as a rule cause a finer crystn of the paraffin. Each petrolatum has a most favorable content of paraffin. The best petrolatum obtained from Grozny oil contains 20% paraffin and that from Surakhani oil 35-40%. The highest content of paraffin is obtained in petrolatum prepd. by cold settling. The most rational way of prepg. petrolatums is by cold settling of the crude oil and not of the distillates. Expts confirming this theory are described in detail.

A. A. BOERTLINGK

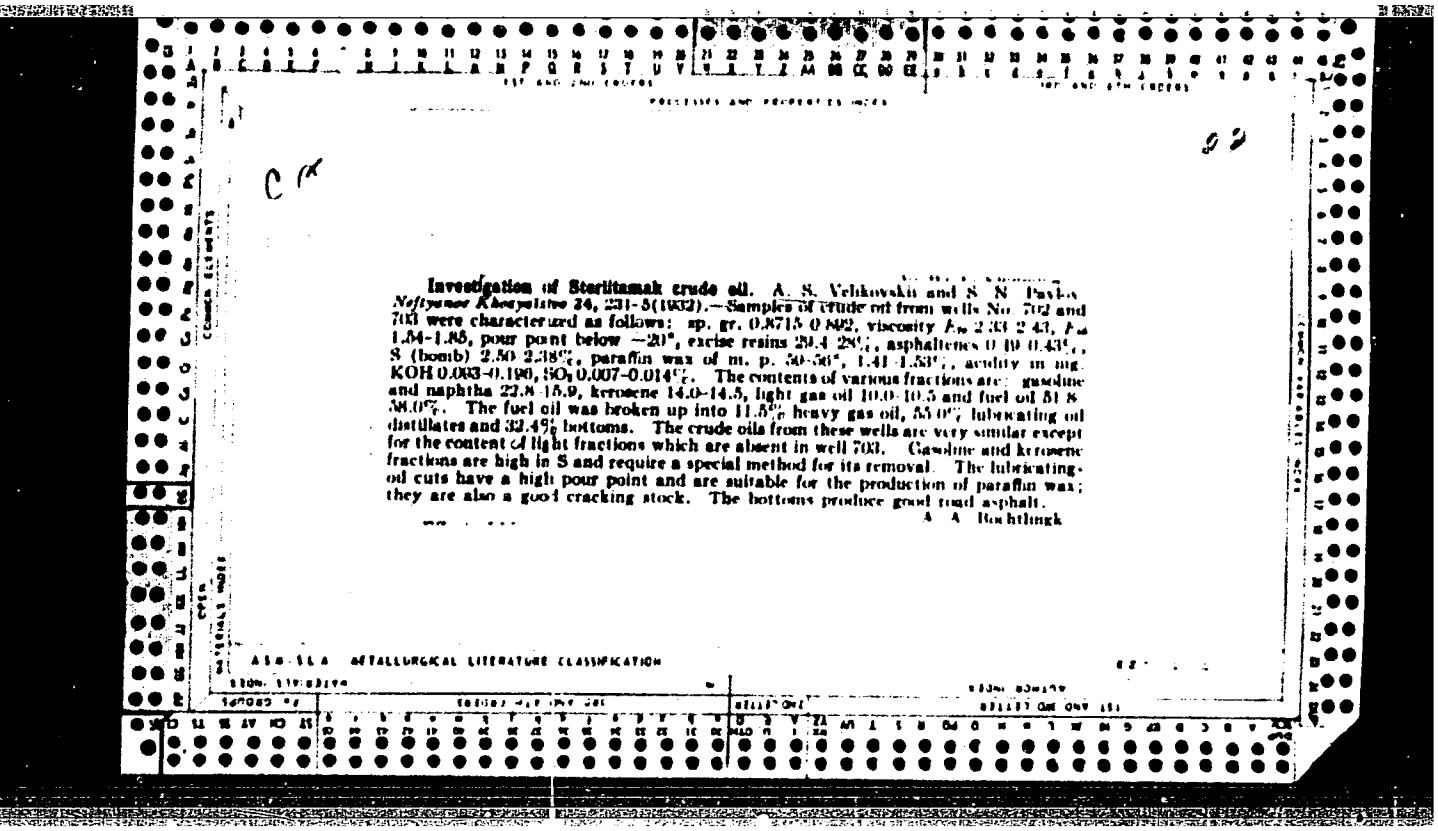


The application of paraffin in the match industry. A. S. Nekrasovskii and P. P. Nekrasovskii. *Neftyanoe Khozyaistvo* 20, 196-202(1931).—Paraffin used for matches may contain up to 60% of spindle-oil distillate, but it should be low in heavier fractions, and there is no need for a thorough acid and clay treatment. Expts. carried out with unrefined and refined paraffins and paraffin diluted with various oils are described.

A.A. Boehtlingk

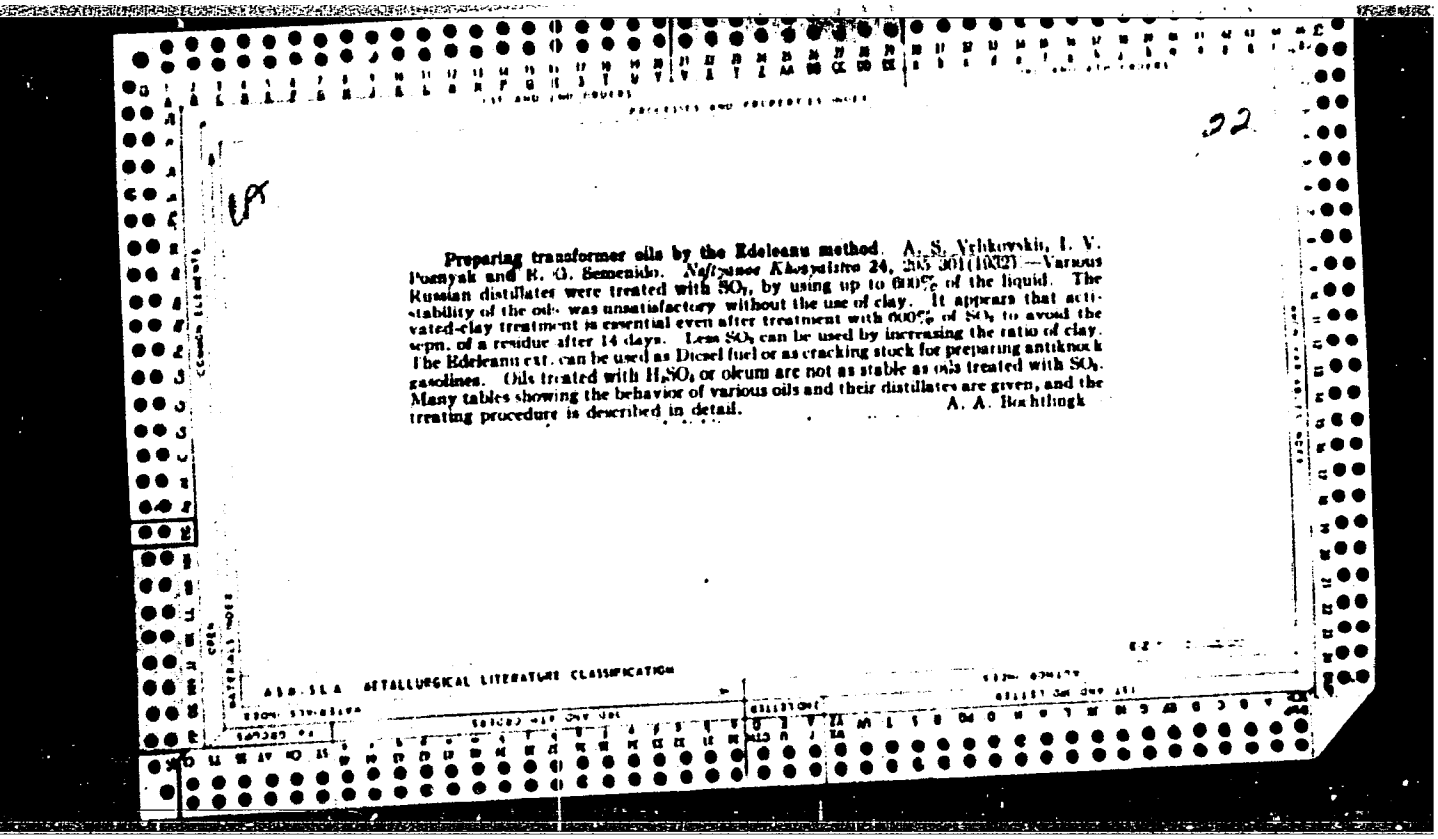


The Edeleanu method applied in the treatment of lubricating oil distillates of heavy crude oil from Binagadui. A. S. VELIKOVSKII AND I. V. PIENYAK. *Neftyanoe Khozyaistvo* 20, 474 (1931).—Machine and cylinder oil distillates obtained from Binagadui crude oil were treated with liquid SO_2 at −10° and the oils obtained were compared with those prepd. by the usual methods. They have (1) a much lower sp. gr.; (2) lower viscosity at low temps. and about the same viscosity as acid- and alkali-treated oils at high temps.; (3) a higher flash than the distillates; (4) general properties of SO_2-treated heavy oils from Binagadui crude oil are about the same as those prepd. from light Balakhanui crude oil; (5) a poor color direct after-treatment which is quite satisfactory after an additional treatment with activated clay, this being due to the interaction of clay with SO_2; (6) oils treated according to (5) are low in Conradson carbon; (7) oils treated according to (5) may in some cases be treated with 1–2% of H_2SO_4. The ext. left after the SO_2 and after having been blown with air constitutes a high-grade asphalt which could be used either as such or in admixt. with some low-grade asphalt.
A. A. BOSHTLINGK



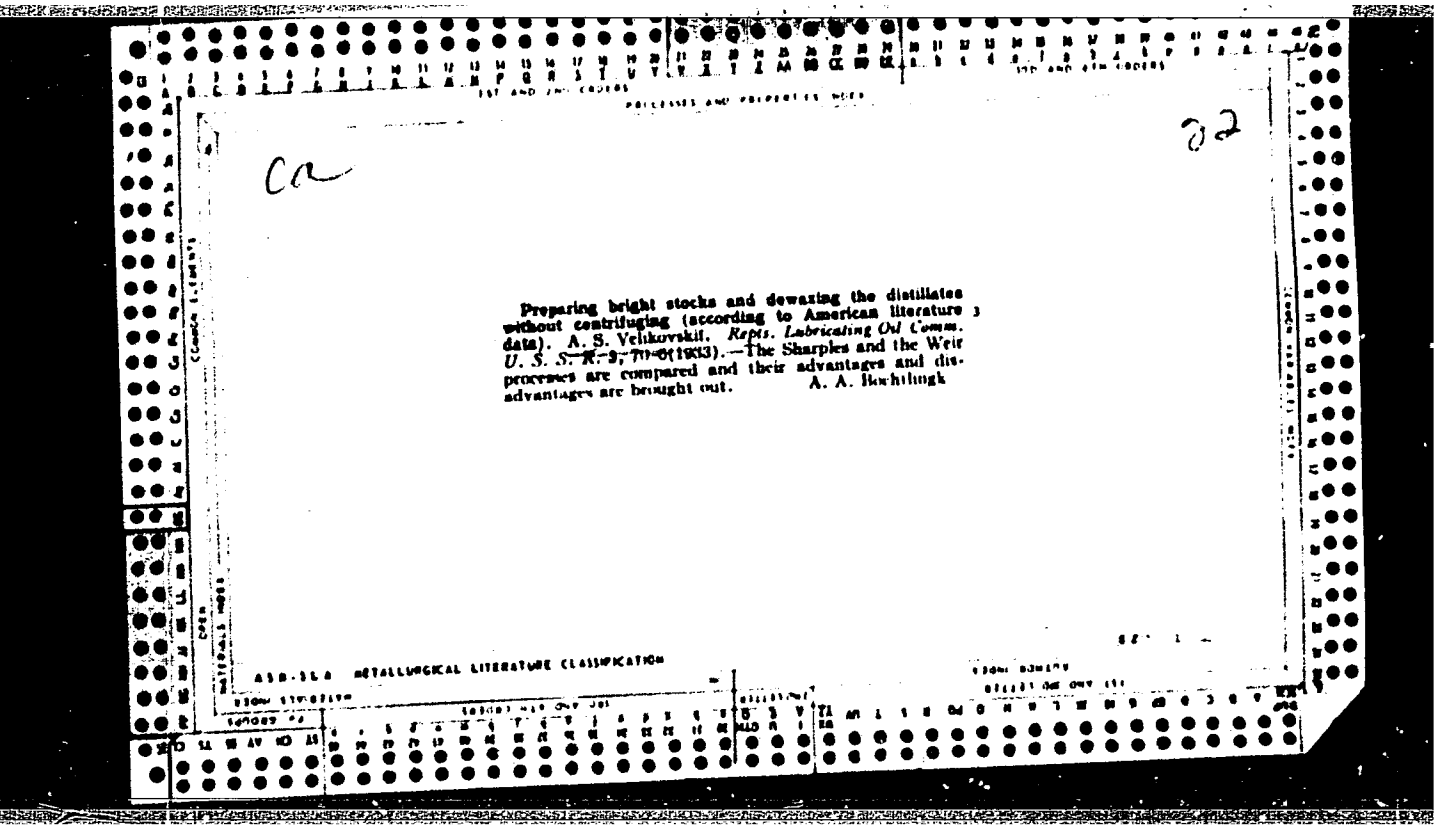
Investigation of Sterlitamak crude oil. A. S. Velikovskii and S. N. Pavlov. *Neftyanoe Khozyaistvo* 24, 231–5(1932).—Samples of crude oil from wells No. 702 and 703 were characterized as follows: sp. gr. 0.8715–0.892, viscosity A_{50} 2.33–2.43, A_{20} 1.84–1.85, pour point below −20°, excise resins 20.4–28%, asphaltenes 0.10–0.43%, S (bomb) 2.50–2.38%, paraffin wax of m. p. 50–56°, 1.41–1.53%, acidity in mg. KOH 0.033–0.190, SO_3 0.007–0.014%. The contents of various fractions are: gasoline and naphtha 22.8–15.9, kerosene 14.0–14.5, light gas oil 10.0–10.5 and fuel oil 51.8–38.0%. The fuel oil was broken up into 11.5% heavy gas oil, 55.0% lubricating oil distillates and 32.49% bottoms. The crude oils from these wells are very similar except for the content of light fractions which are absent in well 703. Gasoline and kerosene fractions are high in S and require a special method for its removal. The lubricating-oil cuts have a high pour point and are suitable for the production of paraffin wax; they are also a good cracking stock. The bottoms produce good road asphalt.

A. A. Bochtlingk



Preparing transformer oils by the Edeleanu method. A. S. Vishnyakin, I. V. Poznyak and R. G. Semenido. *Neftyanoe Khozyaistvo* 24, 305-301(1932).—Various Russian distillates were treated with SO_2, by using up to 600% of the liquid. The stability of the oils was unsatisfactory without the use of clay. It appears that activated-clay treatment is essential even after treatment with 600% of SO_2 to avoid the sepn. of a residue after 14 days. Less SO_2 can be used by increasing the ratio of clay. The Edeleanu ext. can be used as Diesel fuel or as cracking stock for preparing antiknock gasolines. Oils treated with H_2SO_4 or oleum are not as stable as oils treated with SO_2. Many tables showing the behavior of various oils and their distillates are given, and the treating procedure is described in detail.

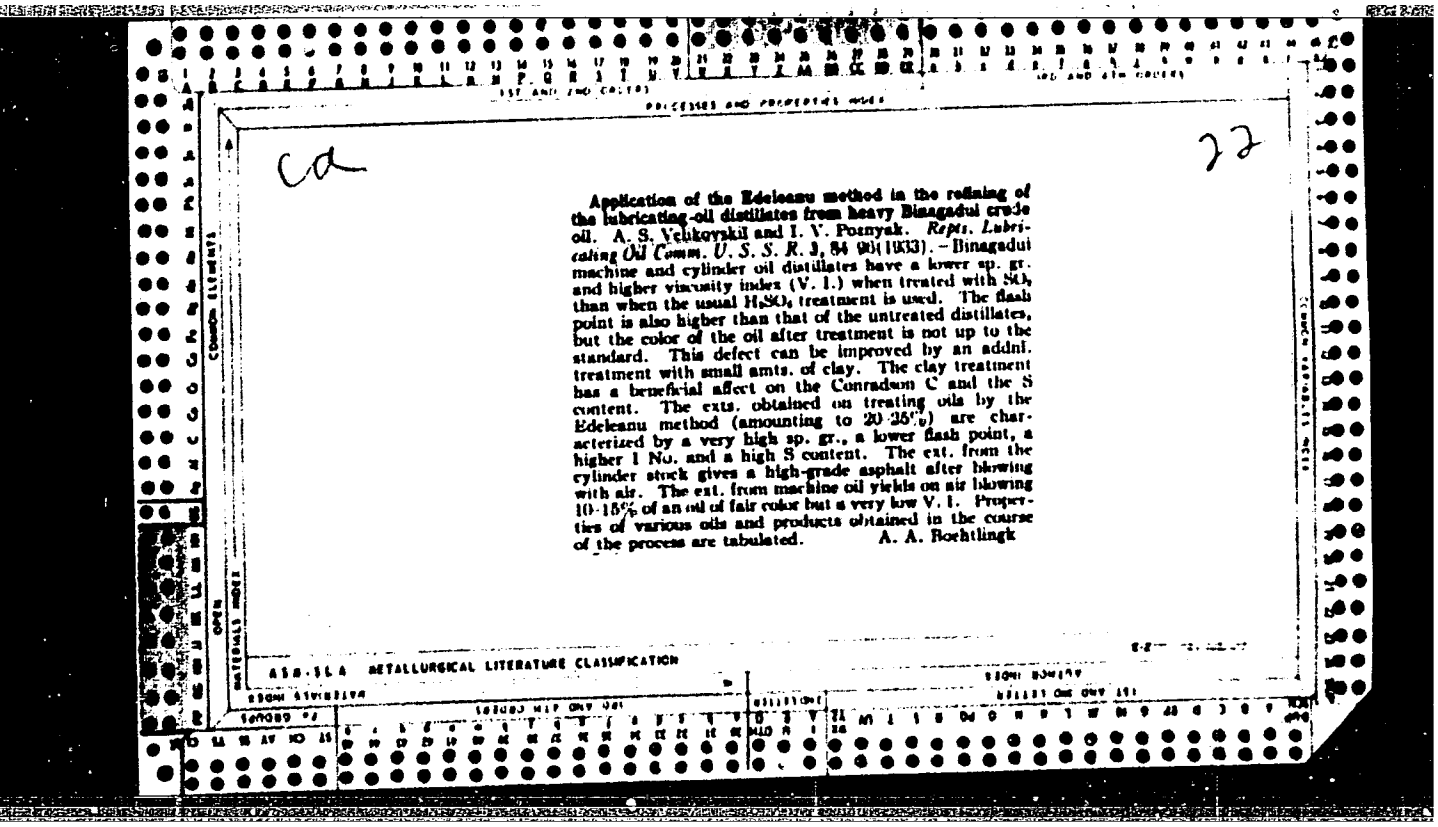
A. A. Boehlingk



Ca

22

Preparing bright stocks and dewaxing the distillates without centrifuging (according to American literature data). A. S. Velikovskii. *Repts. Lubricating Oil Comm. U. S. S. R.* 3, 70–6 (1933).—The Sharples and the Weir processes are compared and their advantages and disadvantages are brought out. A. A. Ikchitsky



Ca

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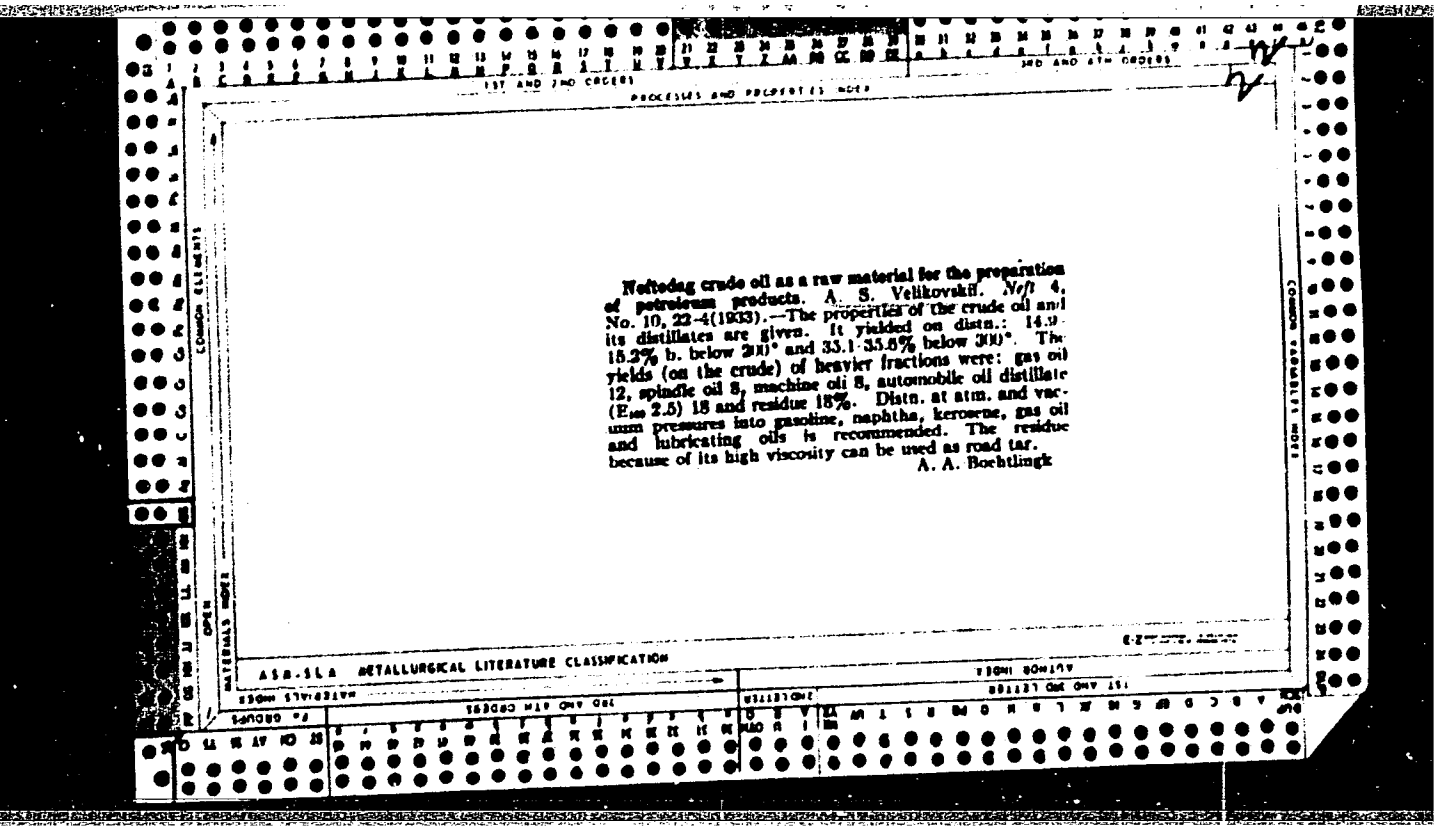
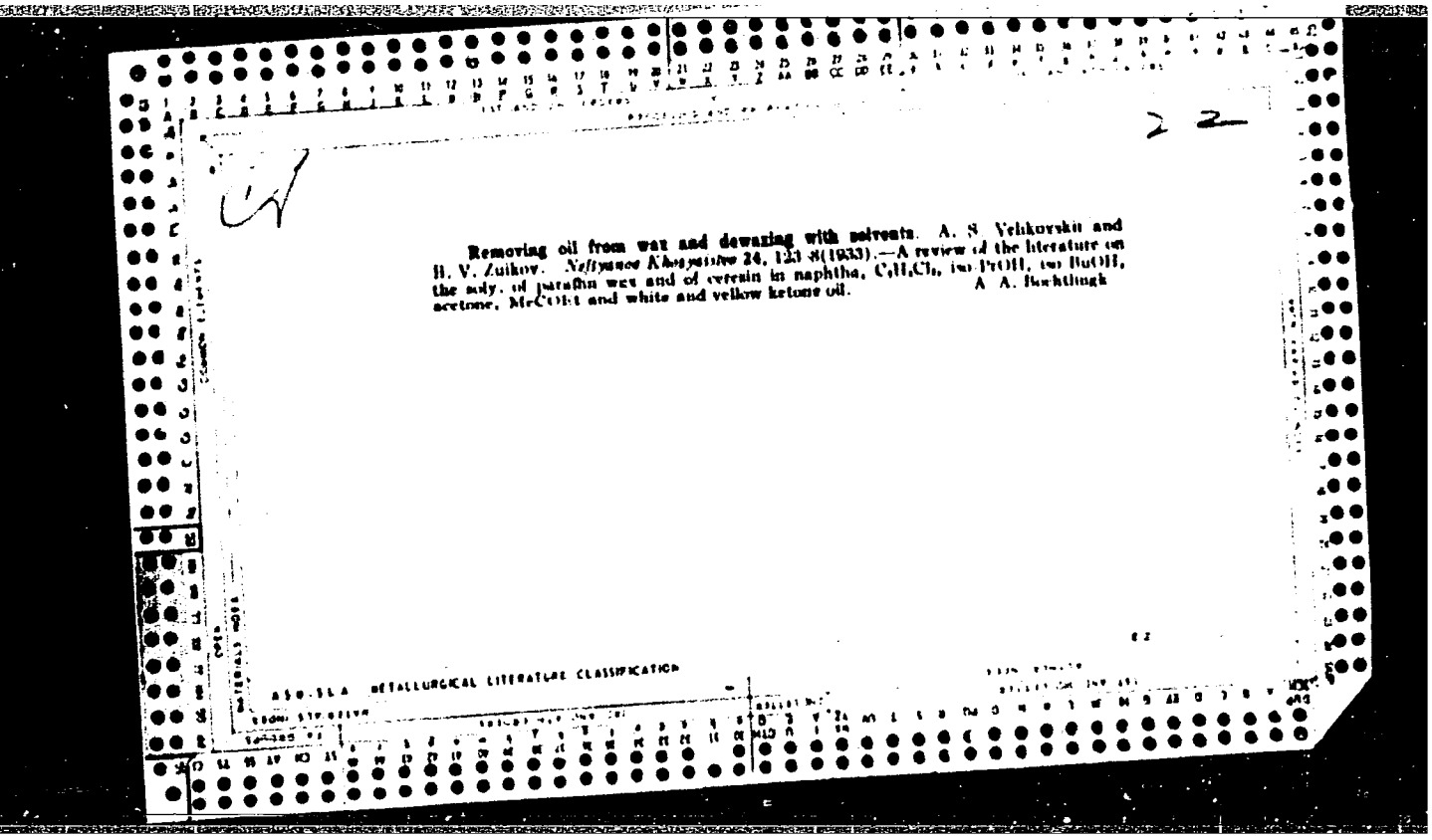
Application of the Edeleanu method in the refining of the lubricating-oil distillates from heavy Binagadui crude oil. A. S. Velikovskii and I. V. Poznyak. *Repts. Lubricating Oil Comm. U. S. S. R.* 3, 84-90 (1933). – Binagadui machine and cylinder oil distillates have a lower sp. gr. and higher viscosity index (V. I.) when treated with SO_2 than when the usual H_2SO_4 treatment is used. The flash point is also higher than that of the untreated distillates, but the color of the oil after treatment is not up to the standard. This defect can be improved by an addnl. treatment with small amts. of clay. The clay treatment has a beneficial affect on the Conradson C and the S content. The exts. obtained on treating oils by the Edeleanu method (amounting to 20-25%) are characterized by a very high sp. gr., a lower flash point, a higher I No. and a high S content. The ext. from the cylinder stock gives a high-grade asphalt after blowing with air. The ext. from machine oil yields on air blowing 10-15% of an oil of fair color but a very low V. I. Properties of various oils and products obtained in the course of the process are tabulated. A. A. Boehtlingk

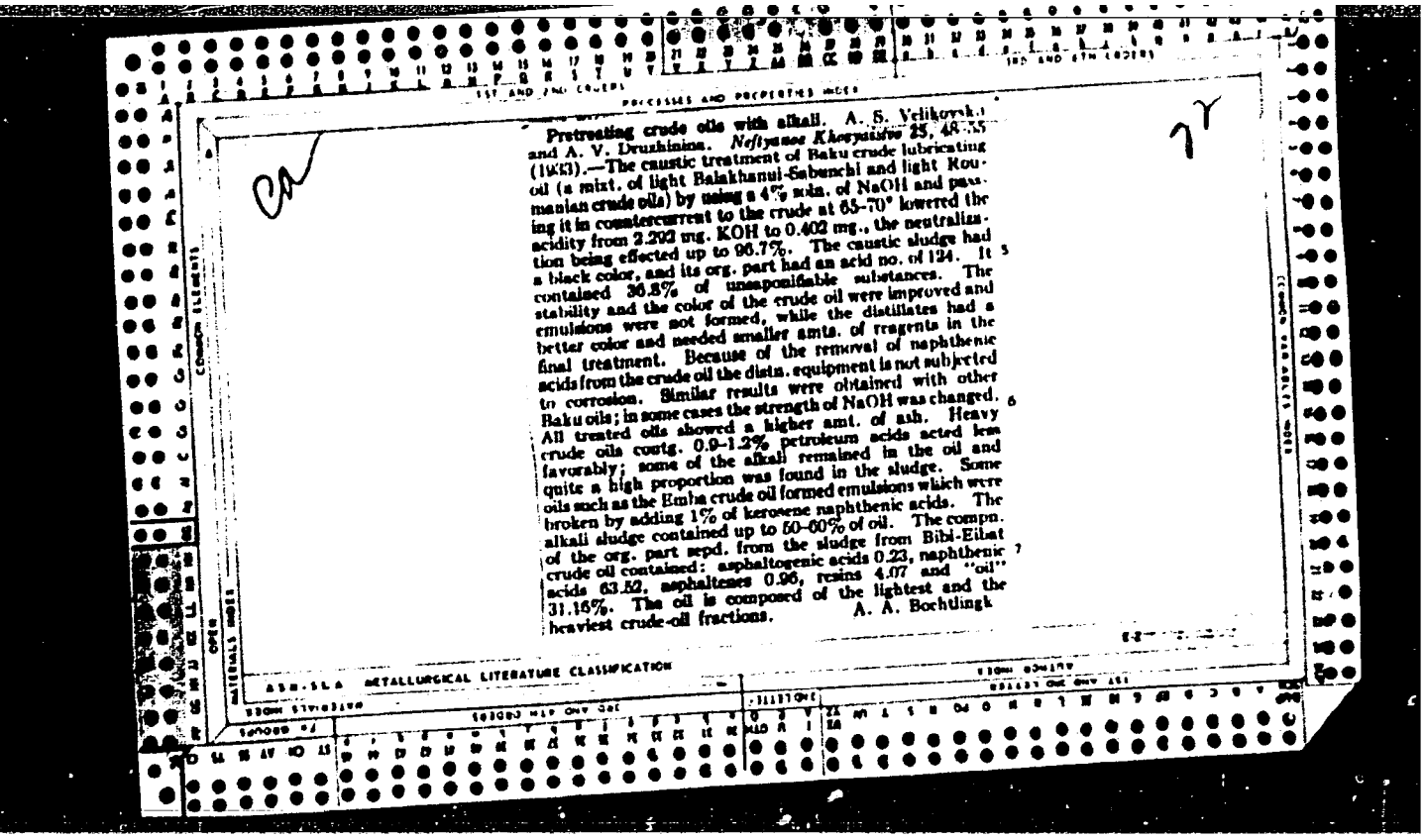
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



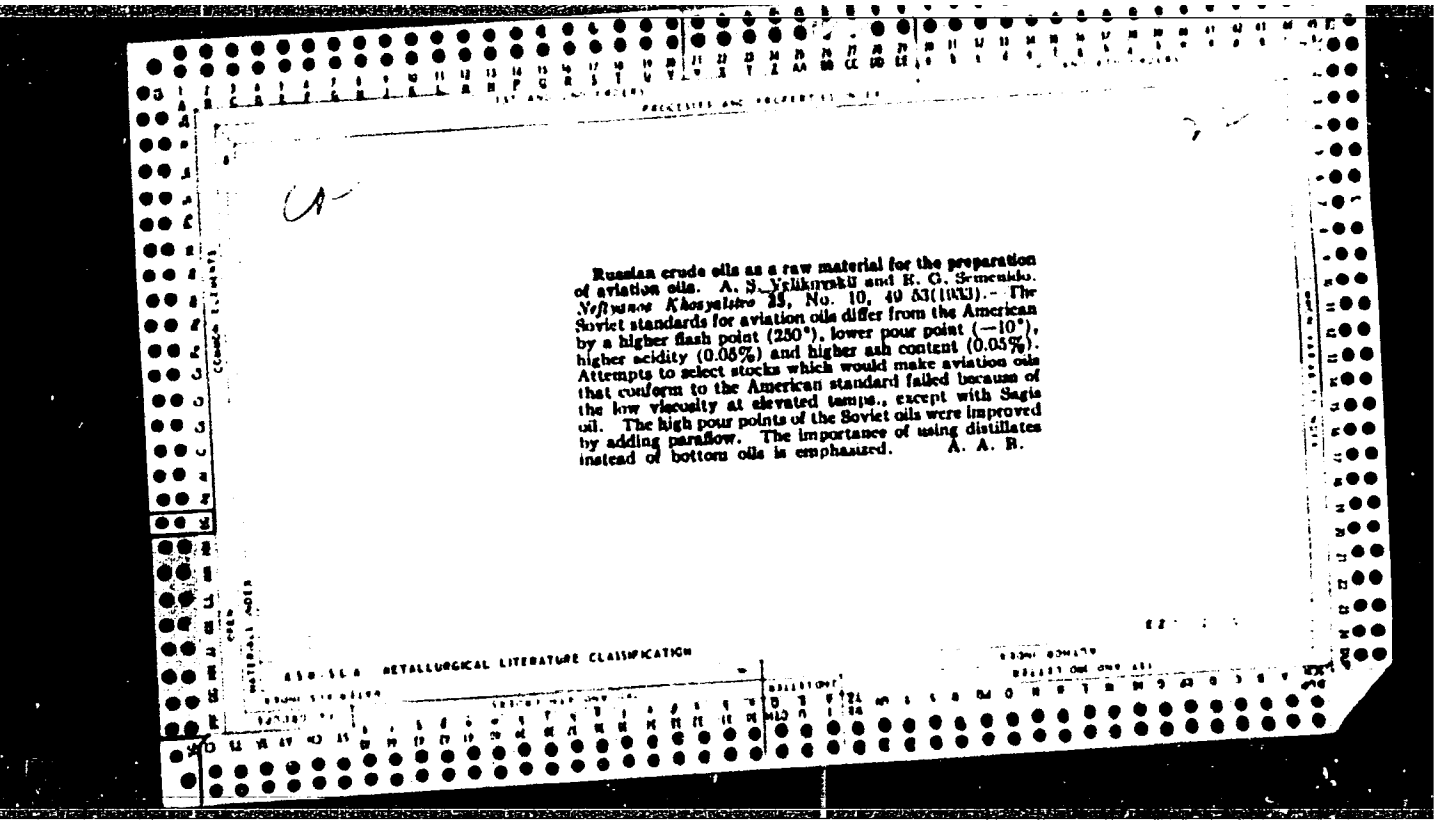
Neftedag crude oil as a raw material for the preparation of petroleum products. A. S. Velikovskiĭ. *Neft* 4, No. 10, 22–4(1933).—The properties of the crude oil and its distillates are given. It yielded on distn.: 14.9–15.2% b. below 200° and 33.1–35.6% below 300°. The yields (on the crude) of heavier fractions were: gas oil 12, spindle oil 8, machine oil 8, automobile oil distillate (E$_{20}$ 2.5) 18 and residue 18%. Distn. at atm. and vacuum pressures into gasoline, naphtha, kerosene, gas oil and lubricating oils is recommended. The residue because of its high viscosity can be used as road tar.
A. A. Boehtlingk



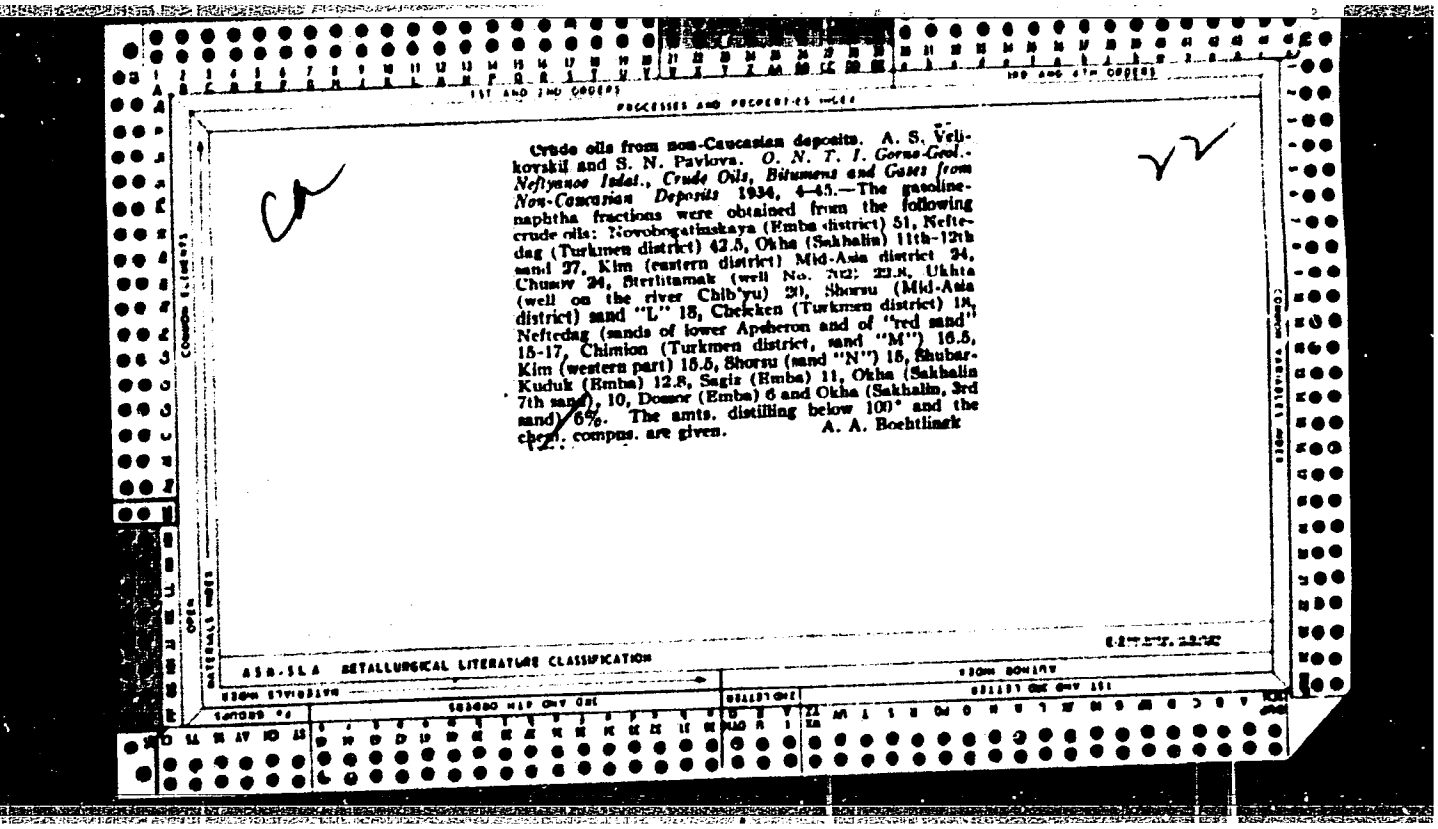
Removing oil from wax and dewaxing with solvents. A. S. Velikovskii and B. V. Zuikov. *Neftyanoe Khozyaistvo* 24, 123-8(1933).—A review of the literature on the subj. of paraffin wax and of ceresin in naphtha, C_6H_5Cl, iso-PrOH, iso-BuOH, acetone, McCOH-t and white and yellow ketone oil. A. A. Boehringk



Pretreating crude oils with alkali. A. S. Velikovskii and A. V. Druzhinina. *Neftyanoe Khozyaistvo* 25, 48-55 (1953).—The caustic treatment of Baku crude lubricating oil (a mixt. of light Balakhanui-Sabunchi and light Koumanian crude oils) by using a 4% soln. of NaOH and passing it in countercurrent to the crude at 65–70° lowered the acidity from 2.202 mg. KOH to 0.402 mg., the neutralization being effected up to 96.7%. The caustic sludge had a black color, and its org. part had an acid no. of 124. It contained 36.8% of unsaponifiable substances. The stability and the color of the crude oil were improved and emulsions were not formed, while the distillates had a better color and needed smaller amts. of reagents in the final treatment. Because of the removal of naphthenic acids from the crude oil the distn. equipment is not subjected to corrosion. Similar results were obtained with other Baku oils; in some cases the strength of NaOH was changed. All treated oils showed a higher amt. of ash. Heavy crude oils contg. 0.9–1.2% petroleum acids acted less favorably; some of the alkali remained in the oil and quite a high proportion was found in the sludge. Some oils such as the Emba crude oil formed emulsions which were broken by adding 1% of kerosene naphthenic acids. The alkali sludge contained up to 50–60% of oil. The compn. of the org. part sepd. from the sludge from Bibi-Eibat crude oil contained: asphaltogenic acids 0.23, naphthenic acids 63.52, asphaltenes 0.96, resins 4.07 and "oil" 31.16%. The oil is composed of the lightest and the heaviest crude-oil fractions. A. A. Bochtlingk

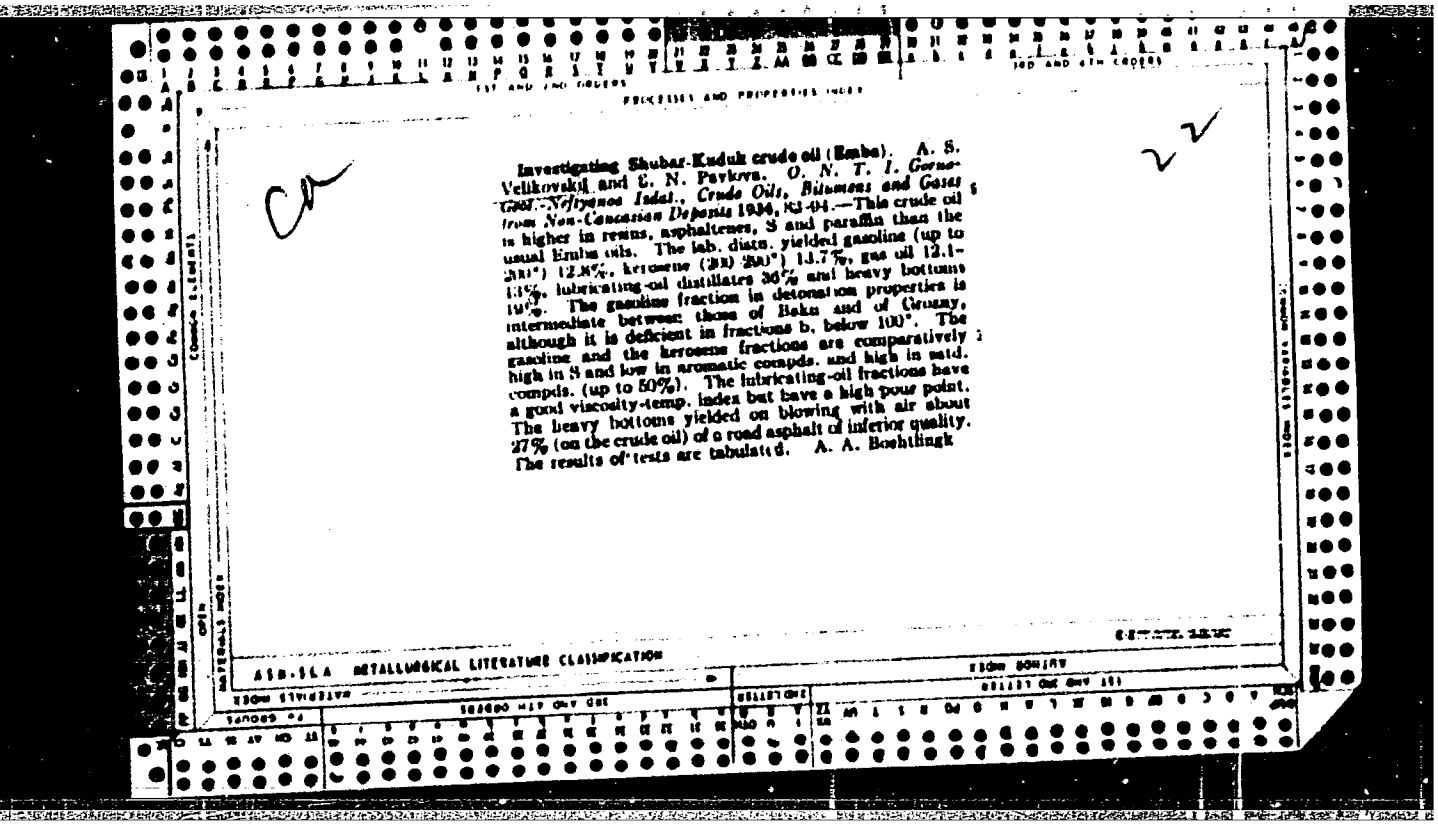


Russian crude oils as a raw material for the preparation of aviation oils. A. S. Yelkinskii and K. G. Semenido. *Neftyanoe Khozyaistvo* 31, No. 10, 49-53(1953).- The Soviet standards for aviation oils differ from the American by a higher flash point (250°), lower pour point (−10°), higher acidity (0.05%) and higher ash content (0.05%). Attempts to select stocks which would make aviation oils that conform to the American standard failed because of the low viscosity at elevated temps., except with Sagis oil. The high pour points of the Soviet oils were improved by adding paraflow. The importance of using distillates instead of bottom oils is emphasized. A. A. B.

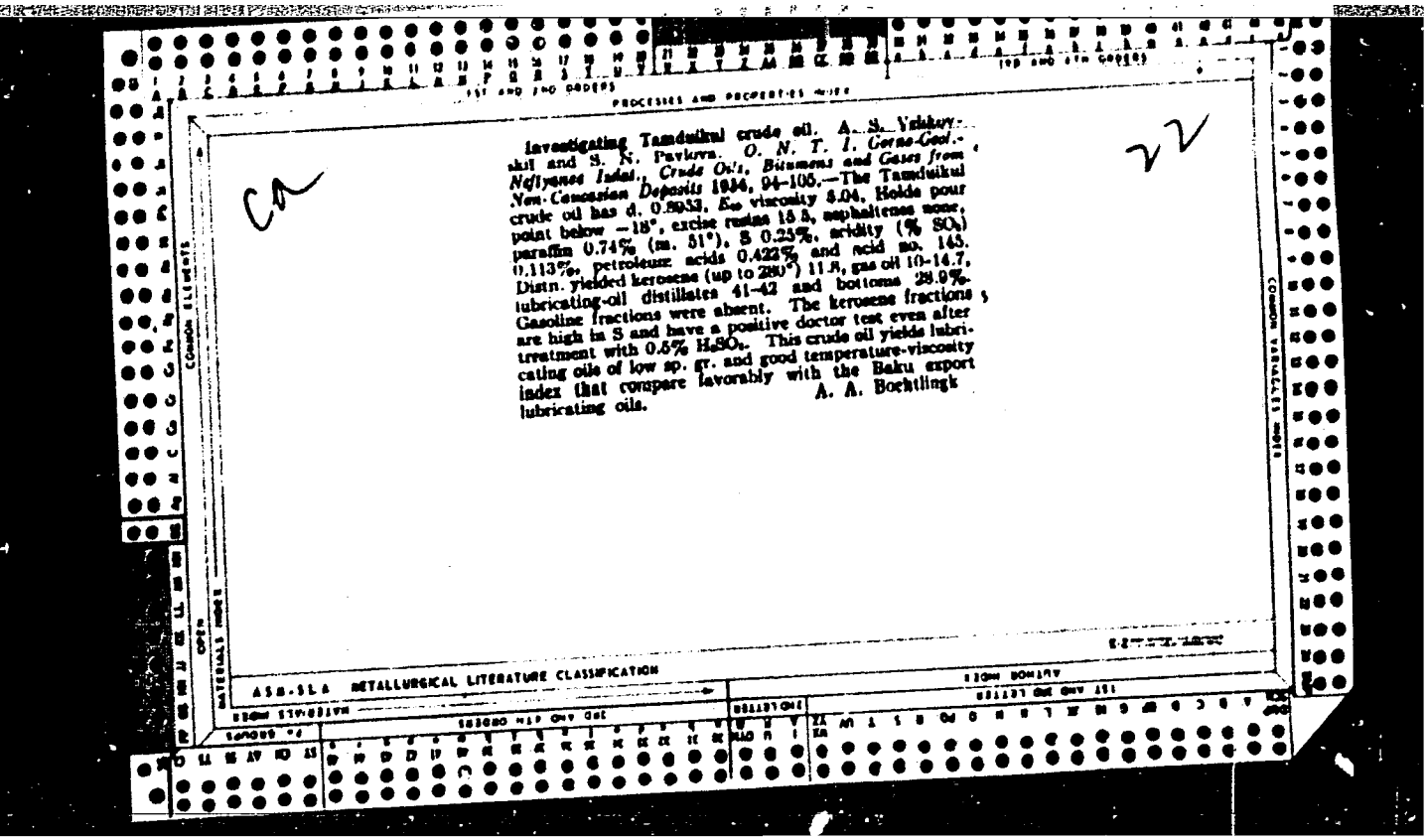


Crude oils from non-Caucasian deposits. A. S. Velikovskii and S. N. Pavlova. *O. N. T. I. Gorno-Geol.-Neftyanoe Izdat., Crude Oils, Bitumens and Gases from Non-Caucasian Deposits* 1934, 4–45.—The gasoline-naphtha fractions were obtained from the following crude oils: Novobogatinskaya (Emba district) 51, Neftedag (Turkmen district) 42.5, Okha (Sakhalin) 11th–12th sand 27, Kim (eastern district) Mid-Asia district 24, Chusov 24, Sterlitamak (well No. 302; 23.8, Ukhta (well on the river Chib'yu) 20, Shorsu (Mid-Asia district) sand "L" 18, Chekken (Turkmen district) 18, Neftedag (sands of lower Apsheron and of "red sand" 15–17, Chimion (Turkmen district, sand "M") 16.5, Kim (western part) 15.5, Shorsu (sand "N") 15, Shubar-Kuduk (Emba) 12.8, Sagiz (Emba) 11, Okha (Sakhalin, 3rd 7th sand), 10, Dossor (Emba) 6 and Okha (Sakhalin, 3rd sand) 6%. The amts. distilling below 100° and the chem. compns. are given.

A. A. Boehtlingk

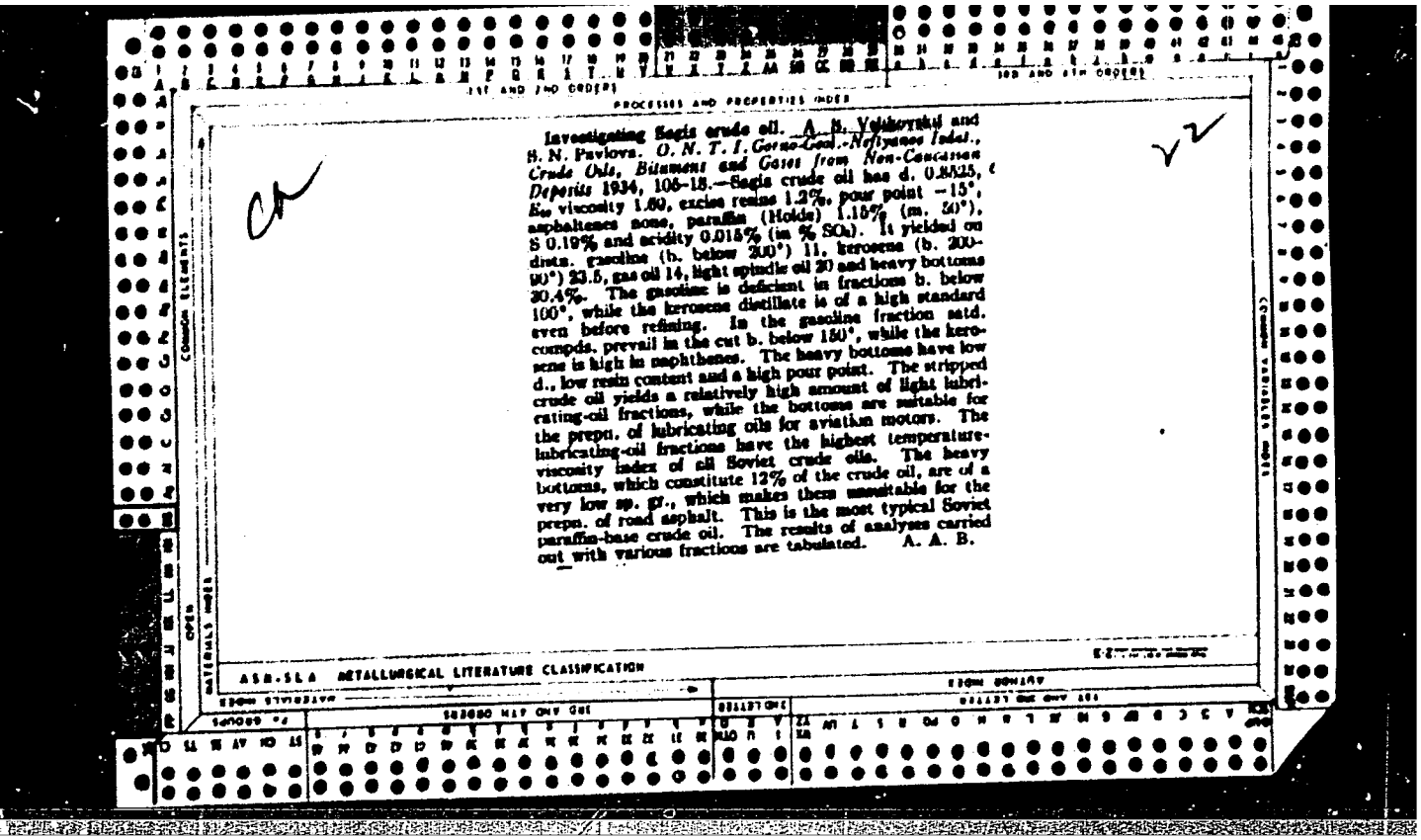


Investigating Shubar-Kuduk crude oil (Emba). A. S. Velikovskiĭ and E. N. Pavlova. *O. N. T. I. Gorno-Geol.-Neftyanoe Izdat., Crude Oils, Bitumens and Gases from Non-Caucasian Deposits* 1934, 83-94.—This crude oil is higher in resins, asphaltenes, S and paraffin than the usual Emba oils. The lab. distn. yielded gasoline (up to 200°) 12.8%, kerosene (200-280°) 13.7%, gas oil 12.1-13%, lubricating-oil distillates 30% and heavy bottoms 19%. The gasoline fraction in detonation properties is intermediate between those of Baku and of Grozny, although it is deficient in fractions b. below 100°. The gasoline and the kerosene fractions are comparatively high in S and low in aromatic compds. and high in satd. compds. (up to 50%). The lubricating-oil fractions have a good viscosity-temp. index but have a high pour point. The heavy bottoms yielded on blowing with air about 27% (on the crude oil) of a road asphalt of inferior quality. The results of tests are tabulated. A. A. Boehringk



Investigating Tamdulkul crude oil. A. S. Yakhontkul and S. N. Pavlova. *O. N. T. I. Gorno-Geol.-Neftyanoe Inst., Crude Oils, Bitumens and Gases from New Cenozoic Deposits* 1934, 94-105.—The Tamdulkul crude oil has d. 0.8953, E_{20} viscosity 8.04, Holde pour point below −18°, excise resins 18 Å, asphaltenes none, paraffin 0.74% (m. 51°), S 0.25%, acidity (% SO_3) 0.113%, petroleum acids 0.422% and acid no. 145. Distn. yielded kerosene (up to 280°) 11 Å, gas oil 10–14.7, lubricating-oil distillates 41–42 and bottoms 28.9%. Gasoline fractions were absent. The kerosene fractions are high in S and have a positive doctor test even after treatment with 0.5% H_2SO_4. This crude oil yields lubricating oils of low sp. gr. and good temperature-viscosity index that compare favorably with the Baku export lubricating oils.

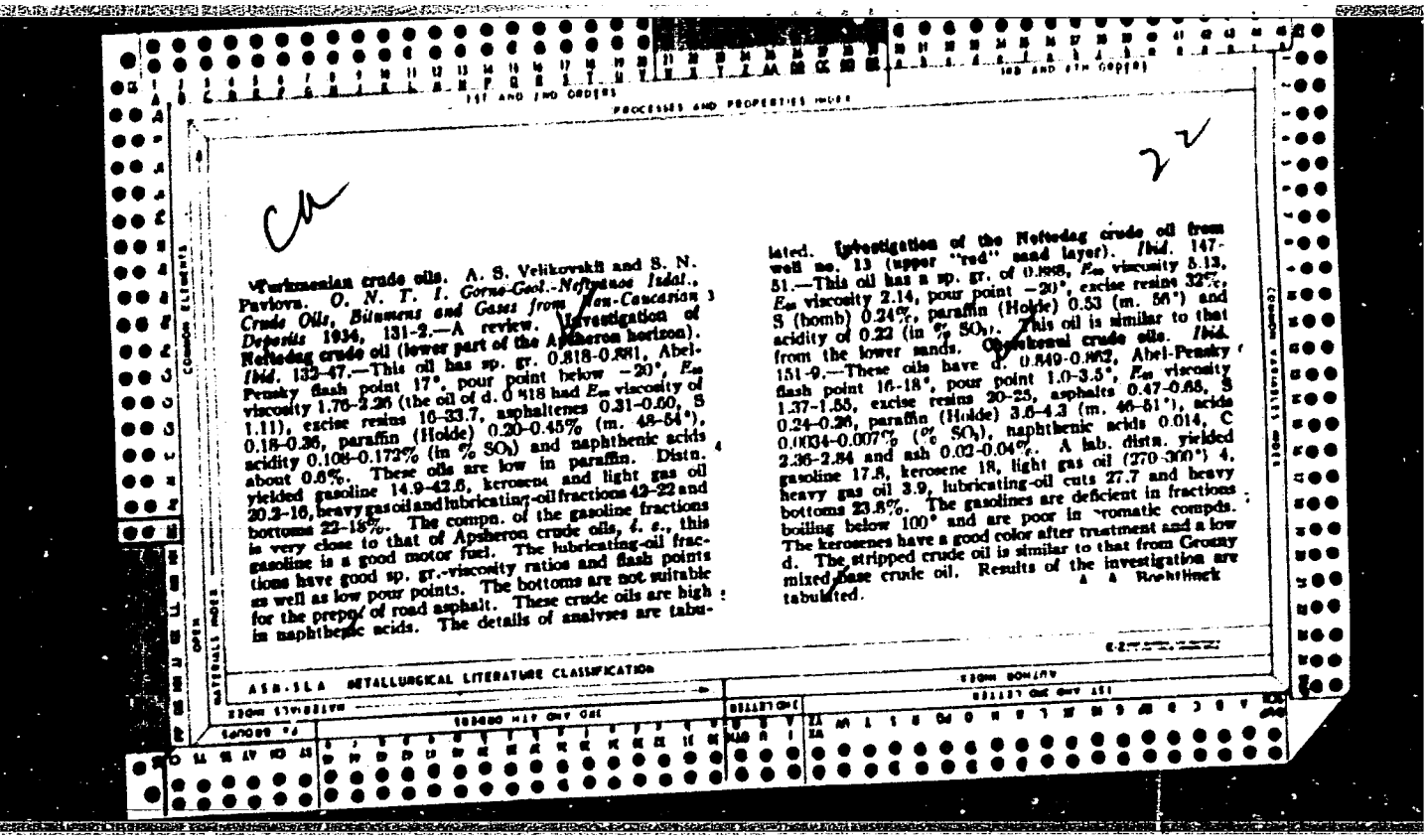
A. A. Boehtlingk



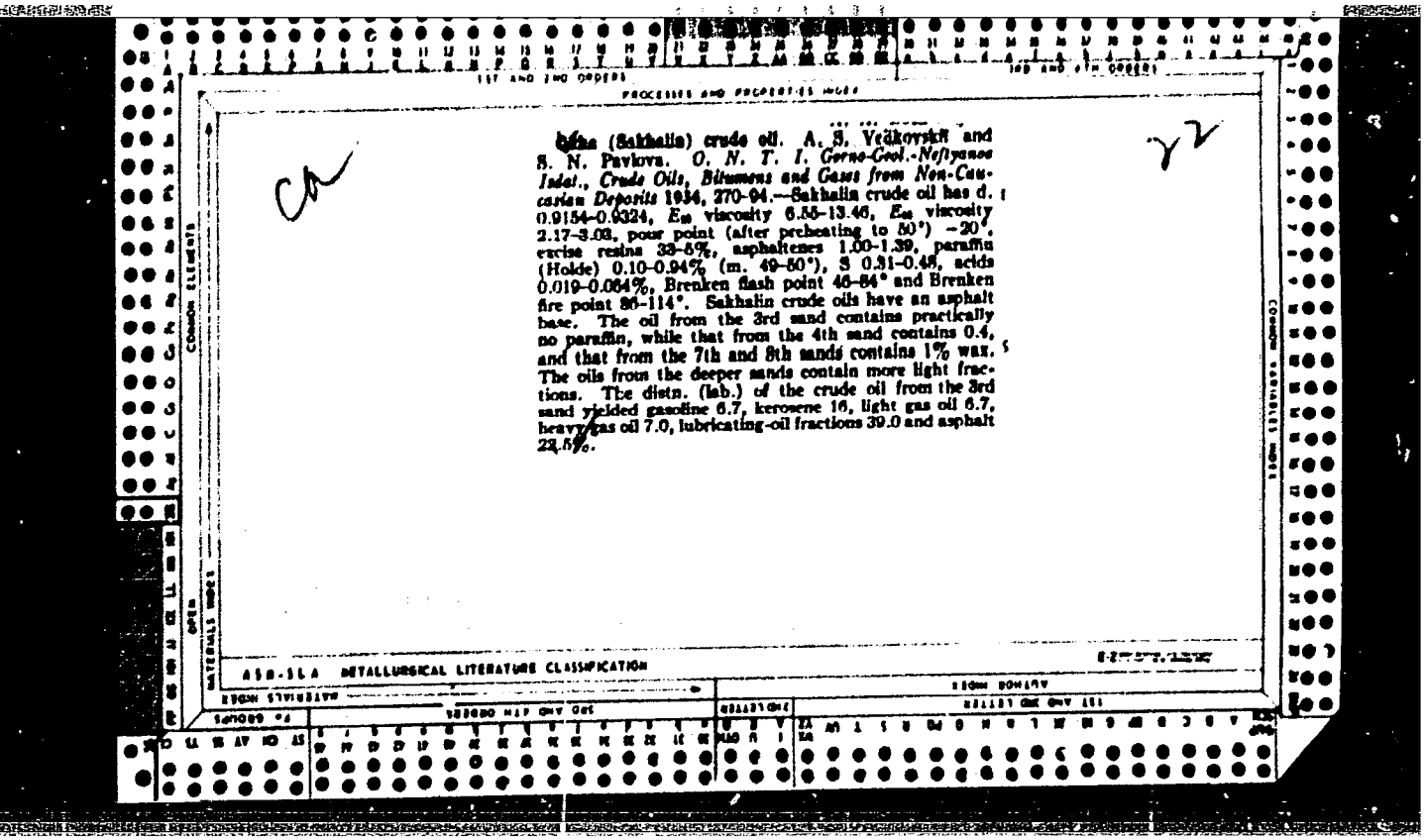
PROCESSES AND PROPERTIES INDEX

Investigating Sagis crude oil. A. B. Vishnyakov and S. N. Pavlova. *O. N. T. I. Gorno-Geol.-Neftyanoe Issled., Crude Oils, Bitumen and Gases from Non-Caucasian Deposits* 1934, 106–18.—Sagis crude oil has d. 0.8825, E_{20} viscosity 1.80, excess resins 1.2%, pour point −15°, asphaltenes none, paraffin (Holde) 1.15% (m. 50°), S 0.19% and acidity 0.015% (in % SO_3). It yielded on distn. gasoline (b. below 200°) 11, kerosene (b. 200–300°) 23.5, gas oil 14, light spindle oil 20 and heavy bottoms 30.4%. The gasoline is deficient in fractions b. below 100°, while the kerosene distillate is of a high standard even before refining. In the gasoline fraction satd. compds. prevail in the cut b. below 150°, while the kerosene is high in naphthenes. The heavy bottoms have low d., low resin content and a high pour point. The stripped crude oil yields a relatively high amount of light lubricating-oil fractions, while the bottoms are suitable for the prepn. of lubricating oils for aviation motors. The lubricating-oil fractions have the highest temperature-viscosity index of all Soviet crude oils. The heavy bottoms, which constitute 12% of the crude oil, are of a very low sp. gr., which makes them unsuitable for the prepn. of road asphalt. This is the most typical Soviet paraffin-base crude oil. The results of analyses carried out with various fractions are tabulated. A. A. B.

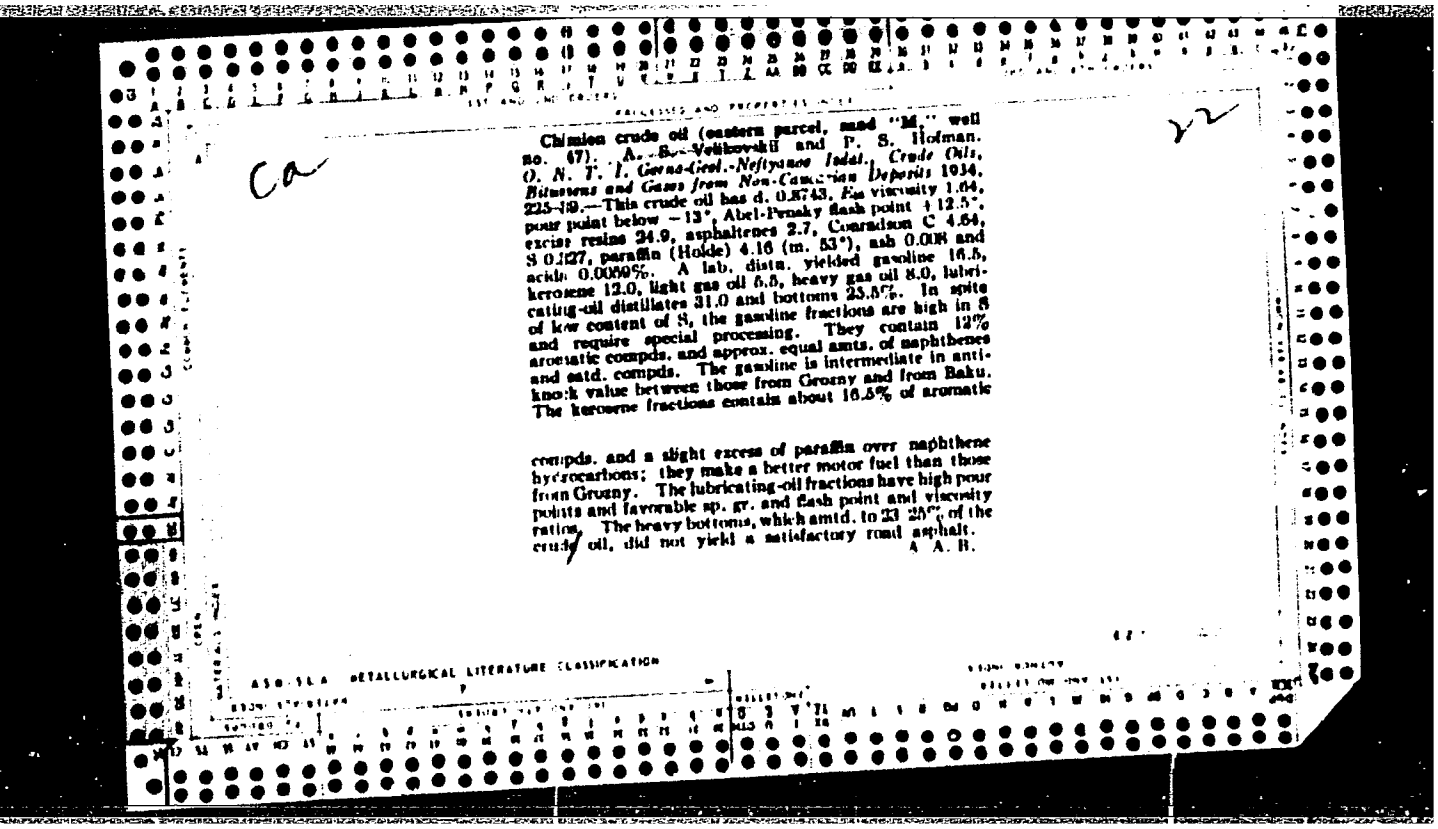
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



Turkmenian crude oils. A. S. Velikovskii and S. N. Pavlova. *O. N. T. I. Gorno-Geol.-Neftyanoe Izdat., Crude Oils, Bitumens and Gases from Non-Caucasian Deposits* 1934, 131-2.—A review. Investigation of Nefteday crude oil (lower part of the Apsheron horizon). *Ibid.* 132-47.—This oil has sp. gr. 0.818-0.881, Abel-Pensky flash point 17°, pour point below −20°, E_{20} viscosity 1.76-2.26 (the oil of d. 0.818 had E_{20} viscosity of 1.11), excise resins 16-33.7, asphaltenes 0.31-0.60, S 0.18-0.36, paraffin (Holde) 0.20-0.45% (m. 48-54°), acidity 0.108-0.172% (in % SO_3) and naphthenic acids about 0.6%. These oils are low in paraffin. Distn. yielded gasoline 14.9-42.6, kerosene and light gas oil 20.2-16, heavy gas oil and lubricating-oil fractions 42-22 and bottoms 22-18%. The compn. of the gasoline fractions is very close to that of Apsheron crude oils, *i. e.*, this gasoline is a good motor fuel. The lubricating-oil fractions have good sp. gr.-viscosity ratios and flash points as well as low pour points. The bottoms are not suitable for the prepn. of road asphalt. These crude oils are high in naphthenic acids. The details of analyses are tabulated. Investigation of the Nefteday crude oil from well no. 13 (upper "red" sand layer). *Ibid.* 147-51.—This oil has a sp. gr. of 0.868, E_{20} viscosity 5.13, E_{50} viscosity 2.14, pour point −20°, excise resins 32%, S (bomb) 0.24%, paraffin (Holde) 0.53 (m. 56°) and acidity of 0.22 (in % SO_3). This oil is similar to that from the lower sands. Obrucheval crude oils. *Ibid.* 151-9.—These oils have d. 0.849-0.892, Abel-Pensky flash point 16-18°, pour point 1.0-3.5°, E_{20} viscosity 1.37-1.55, excise resins 20-25, asphalts 0.47-0.68, S 0.24-0.26, paraffin (Holde) 3.6-4.3 (m. 46-51°), acids 0.0034-0.007% (% SO_3), naphthenic acids 0.014, C 2.36-2.84 and ash 0.02-0.04%. A lab. distn. yielded gasoline 17.8, kerosene 18, light gas oil (270-300°) 4, heavy gas oil 3.9, lubricating-oil cuts 27.7 and heavy bottoms 23.8%. The gasolines are deficient in fractions boiling below 100° and are poor in aromatic compds. The kerosenes have a good color after treatment and a low d. The stripped crude oil is similar to that from Grozny mixed-base crude oil. Results of the investigation are tabulated. A. A. Rosenbaum

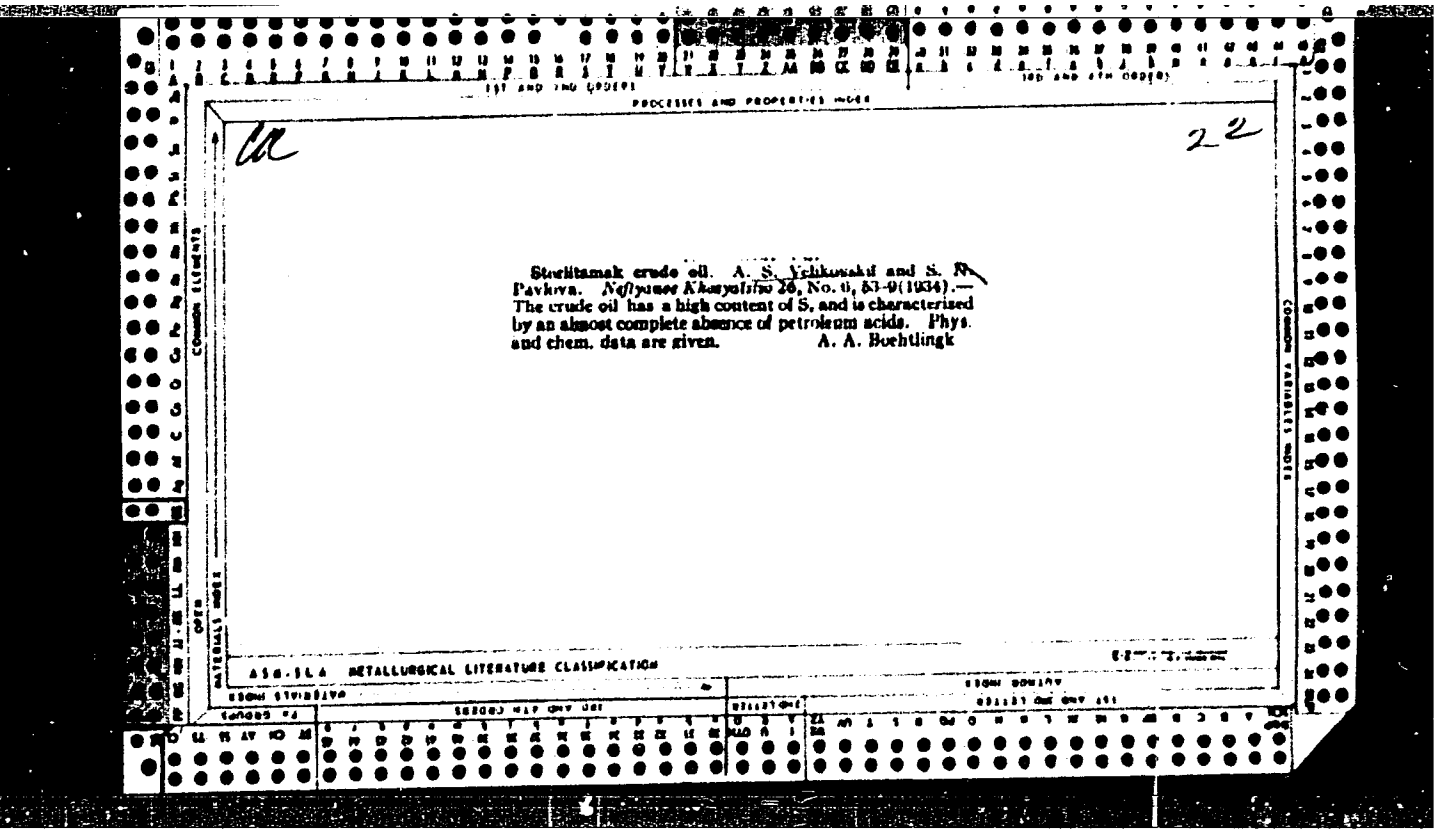


Sakhalin (Sakhalin) crude oil. A. S. Vedkovskii and S. N. Pavlova. *O. N. T. I. Gorno-Geol.-Neftyanoe Izdat., Crude Oils, Bitumens and Gases from Non-Caucasian Deposits* 1934, 270-94.—Sakhalin crude oil has d. 0.9154–0.9324, E_{20} viscosity 6.55–13.46, E_{50} viscosity 2.17–3.03, pour point (after preheating to 50°) −20°, excise resins 33–5%, asphaltenes 1.00–1.39, paraffin (Holde) 0.10–0.94% (m. 49–50°), S 0.31–0.48, acids 0.019–0.064%, Brenken flash point 46–84° and Brenken fire point 86–114°. Sakhalin crude oils have an asphalt base. The oil from the 3rd sand contains practically no paraffin, while that from the 4th sand contains 0.4, and that from the 7th and 8th sands contains 1% wax. The oils from the deeper sands contain more light fractions. The distn. (lab.) of the crude oil from the 3rd sand yielded gasoline 6.7, kerosene 16, light gas oil 6.7, heavy gas oil 7.0, lubricating-oil fractions 39.0 and asphalt 23.6%.

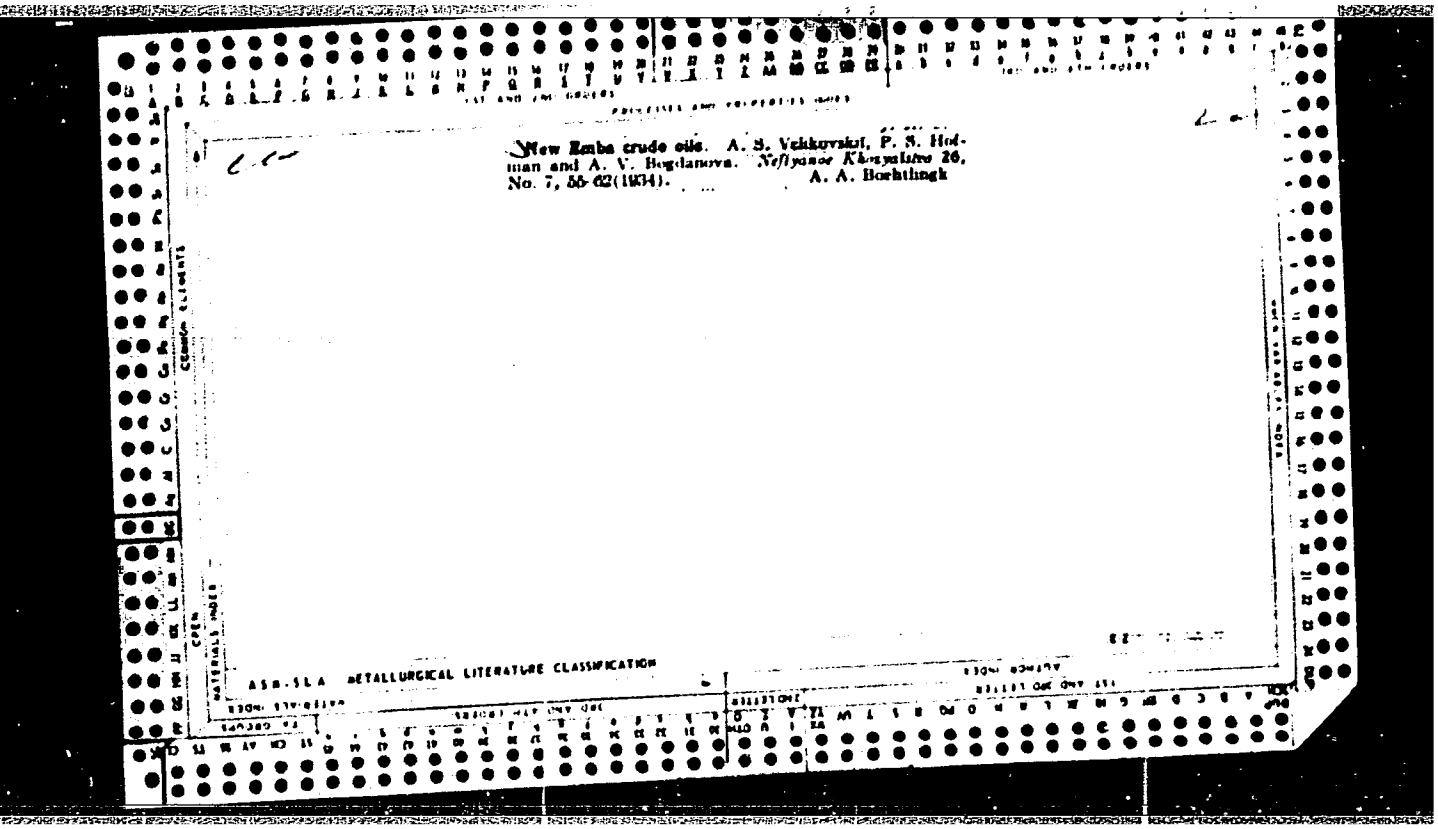


Chimion crude oil (eastern parcel, mud "M" well no. 67). A. S. Velikovskii and P. S. Hofman. *O. N. T. I. Gorno-Geol.-Neftyanoe Izdat., Crude Oils, Bitumens and Gases from Non-Caucasian Deposits* 1934, 225-49.—This crude oil has d. 0.8743, Ea viscosity 1.64, pour point below −13°, Abel-Penaky flash point + 12.5°, resins 24.9, asphaltenes 2.7, Conradson C 4.64, S 0.127, paraffin (Holde) 4.16 (m. 53°), ash 0.008 and acids 0.0099%. A lab. distn. yielded gasoline 16.5, kerosene 12.0, light gas oil 6.0, heavy gas oil 8.0, lubricating-oil distillates 31.0 and bottoms 25.5%. In spite of low content of S, the gasoline fractions are high in S and require special processing. They contain 12% aromatic compds. and approx. equal amts. of naphthenes and satd. compds. The gasoline is intermediate in anti-knock value between those from Grozny and from Baku. The kerosene fractions contain about 16.5% of aromatic compds. and a slight excess of paraffin over naphthene hydrocarbons; they make a better motor fuel than those from Grozny. The lubricating-oil fractions have high pour points and favorable sp. gr. and flash point and viscosity ratios. The heavy bottoms, which amtd. to 23.25% of the crude oil, did not yield a satisfactory road asphalt.

A. A. B.

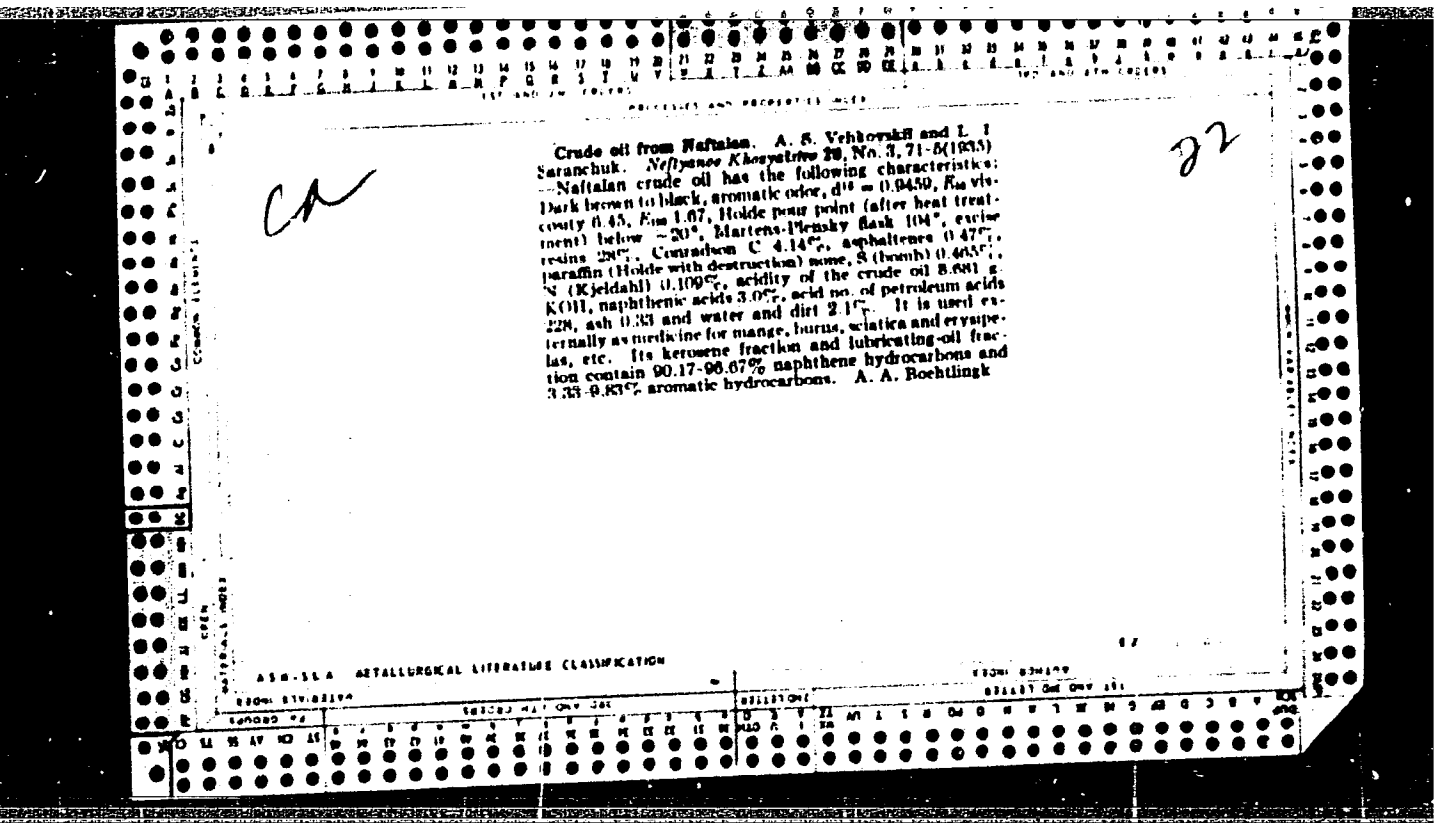


Sterlitamak crude oil. A. S. Velikovskiĭ and S. N. Pavkina. *Neftyanoe Khozyaĭstvo* 26, No. 6, 53-9(1934).—The crude oil has a high content of S, and is characterised by an almost complete absence of petroleum acids. Phys. and chem. data are given. A. A. Boehtlingk

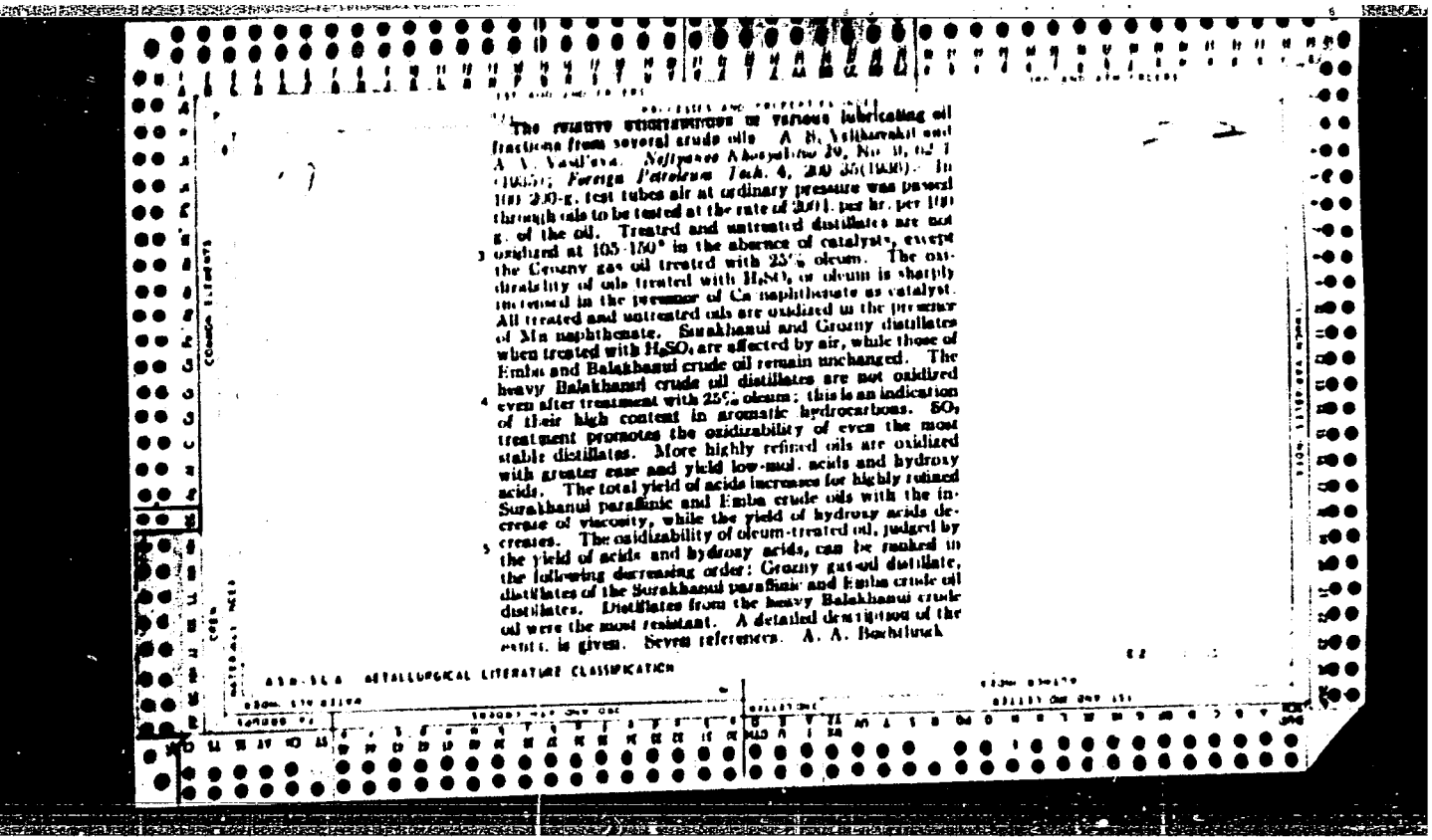


New Emba crude oils. A. S. Vekhovskaĭ, P. S. Hofman and A. V. Bogdanova. *Neftyanoe Khozyaĭstvo* 26, No. 7, 55-62(1948). A. A. Borkhlingk

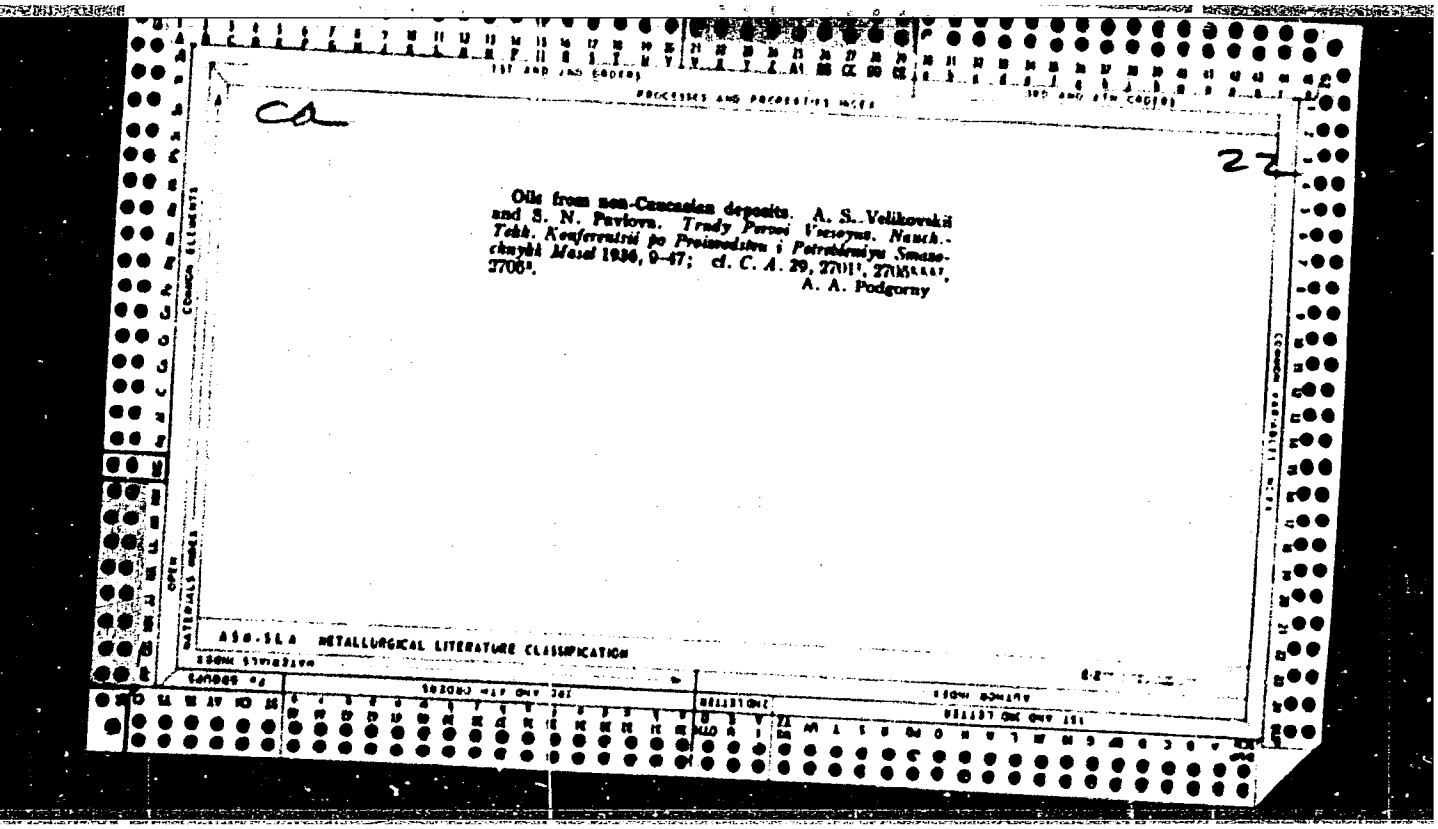
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



Crude oil from Naftalan. A. S. Vekhovskiĭ and L. I. Saranchuk. *Neftyanoe Khozyaistvo* 16, No. 3, 71-6(1935). —Naftalan crude oil has the following characteristics: Dark brown to black, aromatic odor, d^{15} = 0.9450, E_{50} viscosity 0.45, E_{20} 1.67, Holde pour point (after heat treatment) below −20°, Martens-Heusky flash 104°, excise resins 28%, Conradson C 4.14%, asphaltenes 0.47%, paraffin (Holde with destruction) none, S (bomb) 0.465%, N (Kjeldahl) 0.109%, acidity of the crude oil 8.681 g. KOH, naphthenic acids 3.05%, acid no. of petroleum acids 228, ash 0.33 and water and dirt 2.1%. It is used externally as turpentine for mange, burns, sciatica and erysipelas, etc. Its kerosene fraction and lubricating-oil fraction contain 90.17-96.67% naphthene hydrocarbons and 3.33-9.83% aromatic hydrocarbons. A. A. Boehtlingk



The relative stabilities of various lubricating oil fractions from several crude oils. A. B. Vaitkevskii and A. V. Vasil'eva. *Neftyanoe Khozyaistvo* 20, No. 11, 62-7 (1935); *Foreign Petroleum Tech.* 4, 330-35(1936). In 100 2.0-g. test tubes air at ordinary pressure was passed through oils to be tested at the rate of 300 l. per hr. per 100 g. of the oil. Treated and untreated distillates are not oxidized at 105-150° in the absence of catalysts, except the Grozny gas oil treated with 25% oleum. The oxidizability of oils treated with H_2SO_4 or oleum is sharply increased in the presence of Co naphthenate as catalyst. All treated and untreated oils are oxidized in the presence of Mn naphthenate. Surakhanui and Grozny distillates when treated with H_2SO_4 are affected by air, while those of Emba and Balakhanui crude oil remain unchanged. The heavy Balakhanui crude oil distillates are not oxidized even after treatment with 25% oleum; this is an indication of their high content in aromatic hydrocarbons. SO_2 treatment promotes the oxidizability of even the most stable distillates. More highly refined oils are oxidized with greater ease and yield low-mol. acids and hydroxy acids. The total yield of acids increases for highly refined Surakhanui paraffinic and Emba crude oils with the increase of viscosity, while the yield of hydroxy acids decreases. The oxidizability of oleum-treated oil, judged by the yield of acids and hydroxy acids, can be ranked in the following decreasing order: Grozny gas-oil distillate, distillates of the Surakhanui paraffinic and Emba crude oil distillates. Distillates from the heavy Balakhanui crude oil were the most resistant. A detailed description of the [illegible] is given. Seven references. A. A. Boichinsk



Oils from non-Caucasian deposits. A. S. Velikovskii and S. N. Pavlova. *Trudy Pervoi Vsesoyuz. Nauch.-Tekh. Konferentsii po Proizvodstvu i Pererabotke Sernistykh Neftei* 1936, 9–47; cf. *C. A.* 29, 2701[1], 2705[8]. A. A. Podgorny

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

22

Investigation of Koschagyl petroleum. A. S. Velikovskii, N. N. Pavlova, P. S. Hofman and E. Rudakova. *Neftyanoe Khozyaistvo* 1947, No. 3, [illegible]. Chem. Zentr. 1947 II, 2101. The petroleum has a d. of 0.8[illegible] and an Engler viscosity of 1.[illegible] at 20°. The raw oil contains [illegible]% resinous substance, 0.88% paraffin, and the Conradson carbon test value is 1.44%. Upon distn. 21.[illegible]% distils below 200°, 19.5% at 200-300°, and [illegible]% above 300°. The gasoline has a high octane no. The oil yields 11% gasoline b. up to 1[illegible]° of octane no. 76.5. The gasoline belongs to the naphthenomethane series of Wirobjan. The mineral oil fractions have a high f. p. but are nevertheless very sensitive to "Paraflow." Boiling of the residue yields 20% gasoline distg. up to 200°.

M. G. Moore

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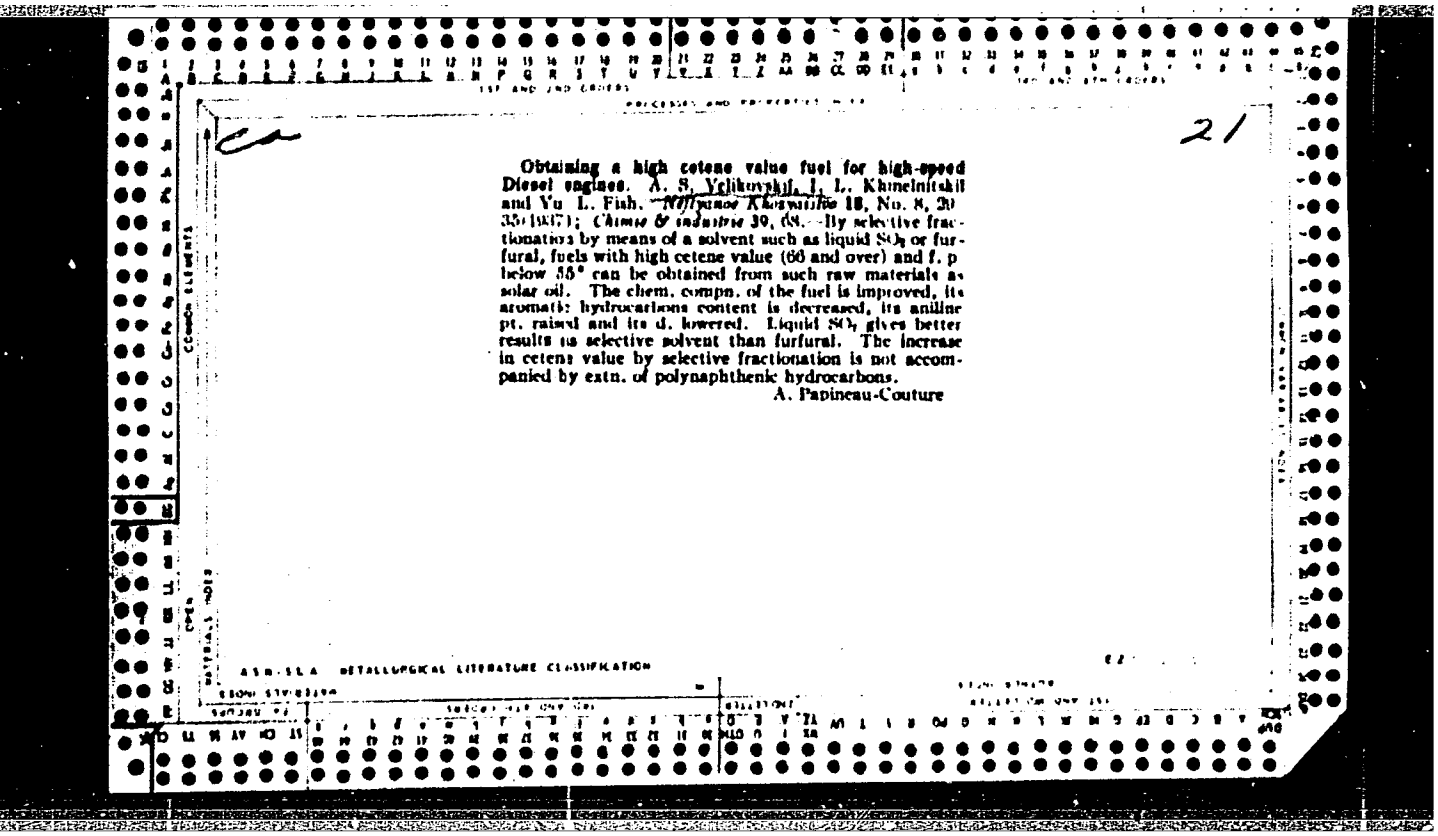
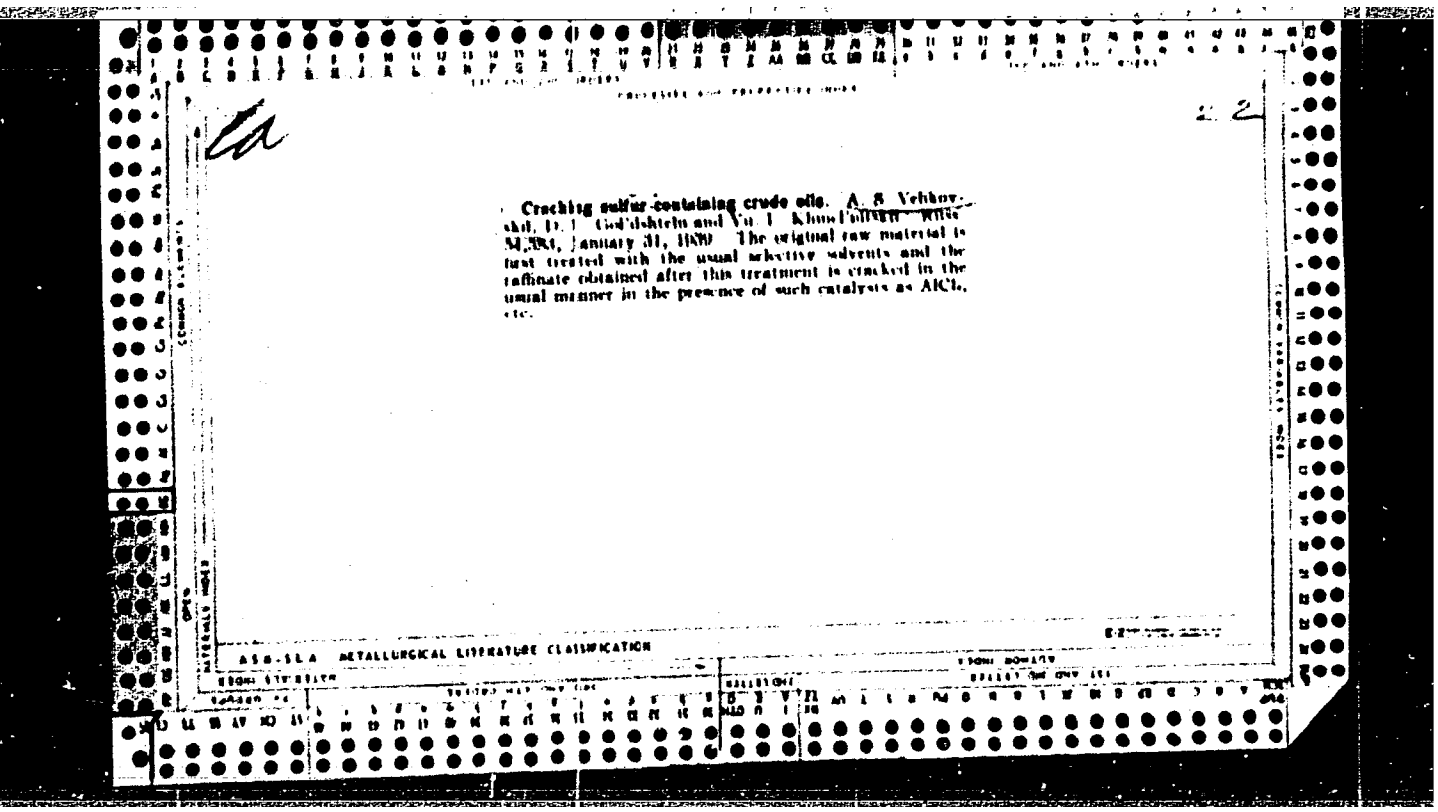


21

Obtaining a high cetene value fuel for high-speed Diesel engines. A. S. Yelikovskii, I. L. Khmelnitskii and Yu. L. Fish. *Neftyanoe Khozyaistvo* 18, No. 8, 30-35(1937); *Chimie & industrie* 39, 68.—By selective fractionation by means of a solvent such as liquid SO_2 or furfural, fuels with high cetene value (60 and over) and f. p. below 55° can be obtained from such raw materials as solar oil. The chem. compn. of the fuel is improved, its aromatic hydrocarbons content is decreased, its aniline pt. raised and its d. lowered. Liquid SO_2 gives better results as selective solvent than furfural. The increase in cetene value by selective fractionation is not accompanied by extn. of polynaphthenic hydrocarbons.

A. Papineau-Couture



Cracking sulfur-containing crude oils. A. S. Vekhov-shil, D. I. Goldshtein and Yu. I. Khmel'nitskii. Neftyanoe M.S.R., January 31, 1940. The original raw material is first treated with the usual selective solvents and the raffinate obtained after this treatment is cracked in the usual manner in the presence of such catalysts as AlCl$_3$, etc.

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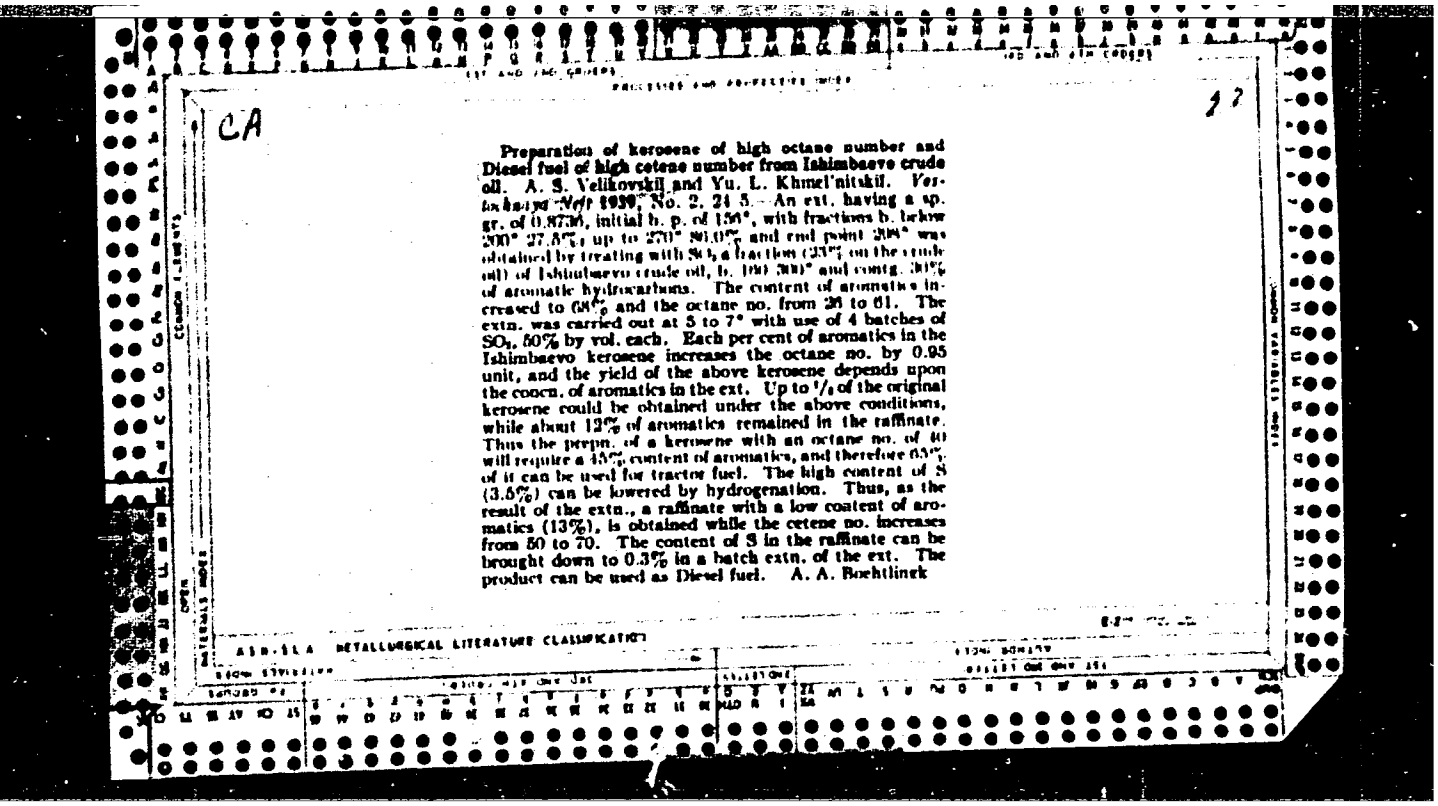
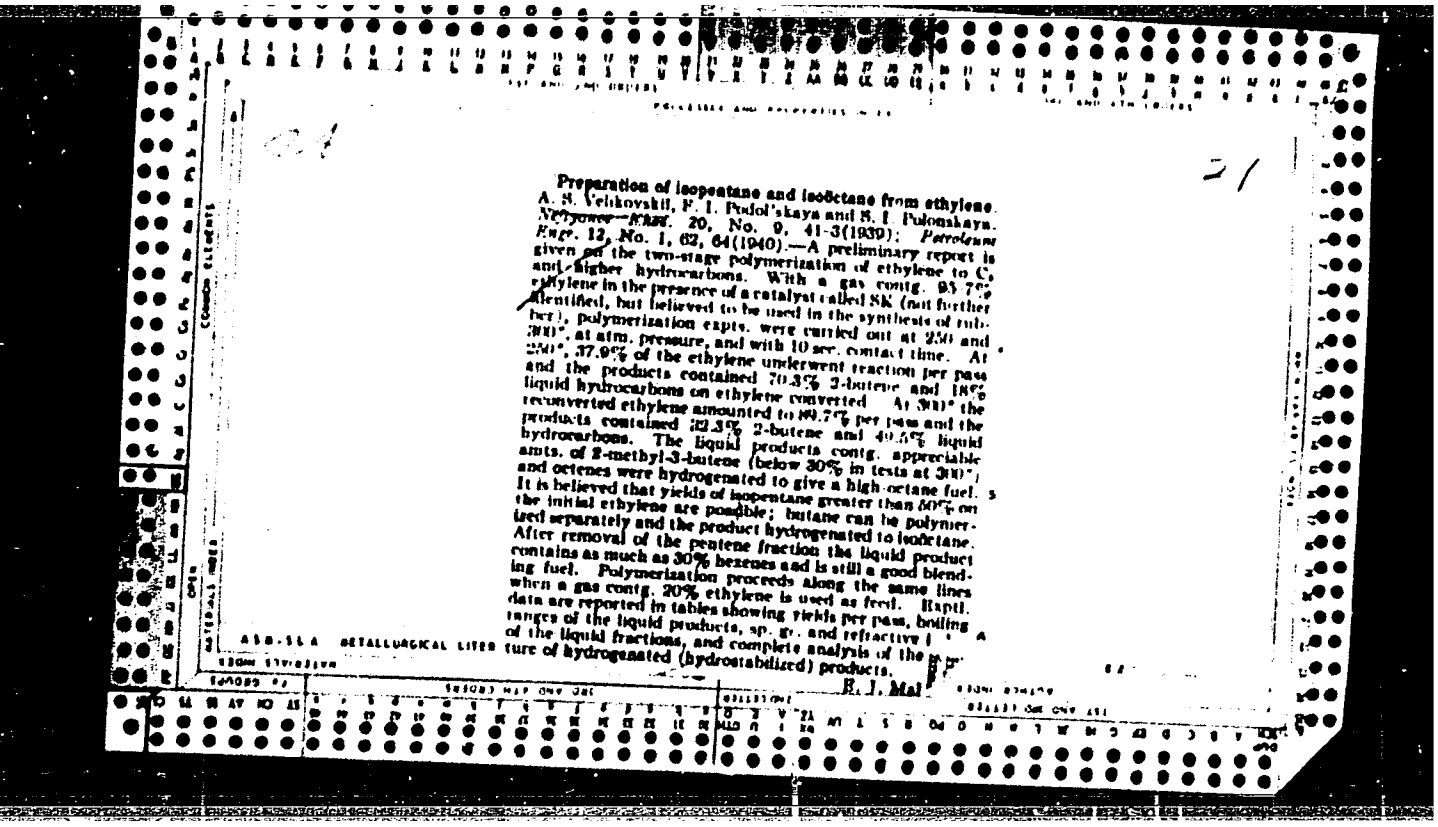


CA

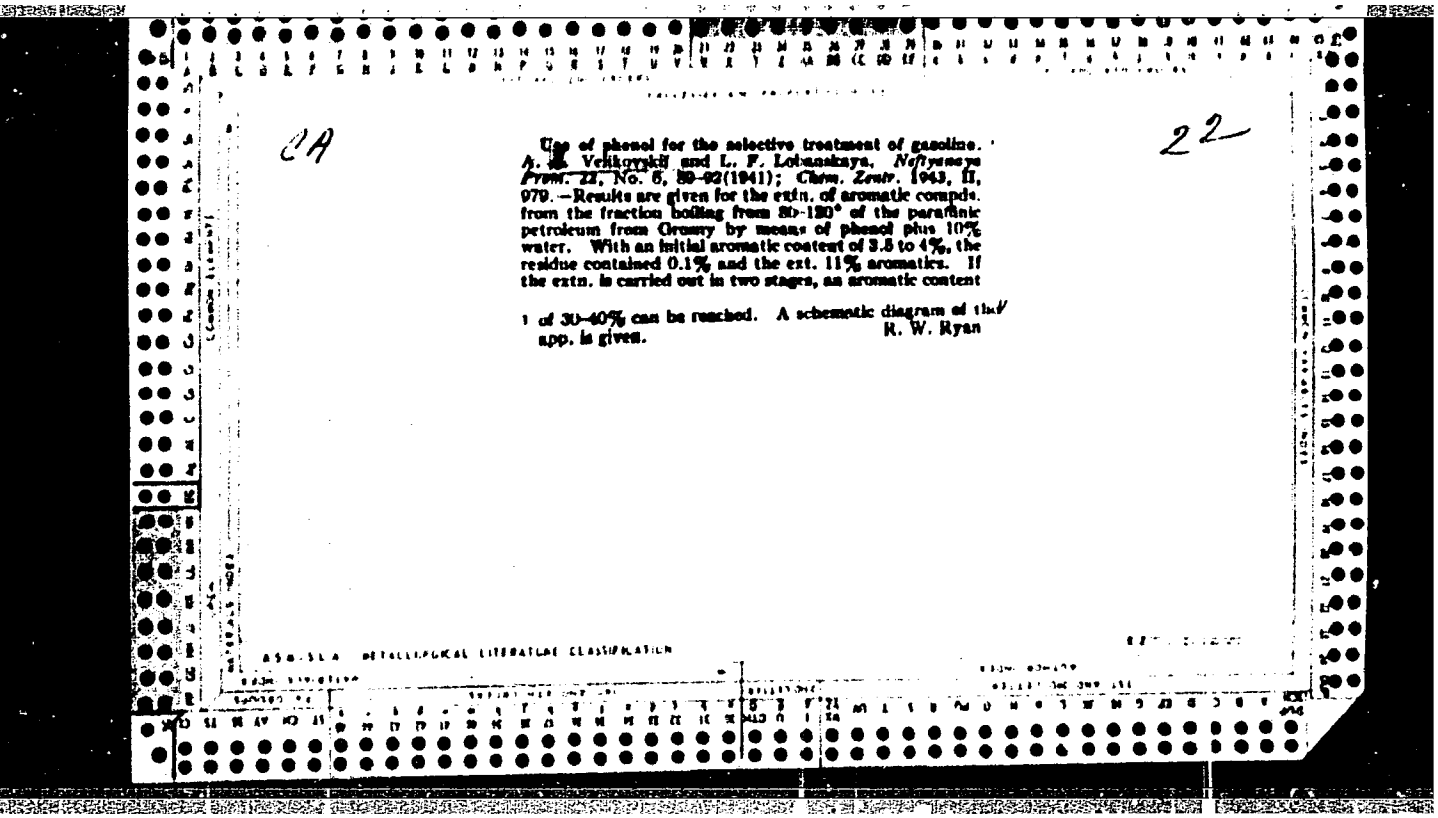
17

Preparation of kerosene of high octane number and Diesel fuel of high cetene number from Ishimbaevo crude oil. A. S. Velikovskii and Yu. L. Khmel'nitskii. *Vestnik Neft* 1939, No. 2, 24-5.—An ext. having a sp. gr. of 0.8730, initial b. p. of 156°, with fractions b. below 200° 27.5%, up to 270° 80.0% and end point 308° was obtained by treating with SO_2 a fraction (33%) on the crude oil) of Ishimbaevo crude oil, b. 190-300° and contg. 30% of aromatic hydrocarbons. The content of aromatics increased to 68% and the octane no. from 26 to 61. The extn. was carried out at 5 to 7° with use of 4 batches of SO_2, 50% by vol. each. Each per cent of aromatics in the Ishimbaevo kerosene increases the octane no. by 0.95 unit, and the yield of the above kerosene depends upon the concn. of aromatics in the ext. Up to 1/3 of the original kerosene could be obtained under the above conditions, while about 12% of aromatics remained in the raffinate. Thus the prepn. of a kerosene with an octane no. of 40 will require a 45% content of aromatics, and therefore 65% of it can be used for tractor fuel. The high content of S (3.6%) can be lowered by hydrogenation. Thus, as the result of the extn., a raffinate with a low content of aromatics (13%), is obtained while the cetene no. increases from 50 to 70. The content of S in the raffinate can be brought down to 0.3% in a batch extn. of the ext. The product can be used as Diesel fuel. A. A. Boehtlingk



Preparation of isopentane and isooctane from ethylene. A. S. Velikovskii, F. I. Podol'skaya and S. I. Polonskaya. *Neftyanoe—Slanc.* 20, No. 9, 41-3(1939); *Petroleum Engr.* 12, No. 1, 62, 64(1940).—A preliminary report is given on the two-stage polymerization of ethylene to C_4 and higher hydrocarbons. With a gas contg. 95.7% ethylene in the presence of a catalyst called SK (not further identified, but believed to be used in the synthesis of rubber), polymerization expts. were carried out at 250 and 300°, at atm. pressure, and with 10 sec. contact time. At 250°, 37.9% of the ethylene underwent reaction per pass and the products contained 70.3% 2-butene and 18% liquid hydrocarbons on ethylene converted. At 300° the reconverted ethylene amounted to 89.7% per pass and the products contained 32.3% 2-butene and 40.5% liquid hydrocarbons. The liquid products contg. appreciable amts. of 2-methyl-3-butene (below 30% in tests at 300°) and octenes were hydrogenated to give a high-octane fuel. It is believed that yields of isopentane greater than 60% on the initial ethylene are possible; butane can be polymerized separately and the product hydrogenated to isooctane. After removal of the pentene fraction the liquid product contains as much as 30% benzenes and is still a good blending fuel. Polymerization proceeds along the same lines when a gas contg. 20% ethylene is used as feed. Rapid data are reported in tables showing yields per pass, boiling ranges of the liquid products, sp. gr. and refractive [illegible] of the liquid fractions, and complete analysis of the [illegible] ture of hydrogenated (hydrostabilized) products.

E. J. Mal



CA

22

Use of phenol for the selective treatment of gasoline. A. M. Velikovskii and L. F. Lobanskaya. *Neftyanoye Prom.* 22, No. 6, 89-92(1941); *Chem. Zentr.* 1943, II, 979.—Results are given for the extn. of aromatic compds. from the fraction boiling from 80-120° of the paraffinic petroleum from Grozny by means of phenol plus 10% water. With an initial aromatic content of 3.5 to 4%, the residue contained 0.1% and the ext. 11% aromatics. If the extn. is carried out in two stages, an aromatic content of 30-40% can be reached. A schematic diagram of the app. is given.

R. W. Ryan

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BC

PROCESSES AND PROPERTIES INDEX

B-I-3

Viscosity of lubricating emulsions and solutions of soaps in mineral oils. D. S. Velikovskii (*Symp. Visc. Liquids and Colloids Acad. Sci. U.S.S.R.* [illegible]; *J. Inst. Petroleum*, 1945, [illegible], 300A).—In the case of a colloidal solution, e.g., soap in oil, [illegible] fundamental characteristic and viscometric data [illegible] used as a guide to behaviour. A better guide is obtained by determining the mechanical equiv. of internal friction by means of a [illegible] testing machine; the [illegible] are comparable with those obtained [illegible] low-velocity gradients [illegible] up to 1000 times > those obtained [illegible]. The mechanical equiv. of internal friction varies linearly with the concn. of soap in oil (variation [illegible] in such cases); [illegible] the thickening power of the soap [illegible] considerable [illegible] engine oil [illegible]. Emulsions are particularly suitable [illegible] which have frequent starts and stops; the mechanical equiv. in the case of emulsions is particularly favourable at the moment of initial [illegible]. Confirmation of this is found by the [illegible] wear in tractor engines lubricated by emulsions. For emulsions the mechanical equiv. of internal friction is in linear relation to the content of Ca soap and of H_2O. R. B. C.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

VELIKOVSKIY, A. S.

Petroleum in the USSR. Moskva, Gos. nauch.-tekhn. izd-vo neftianoi i gornoi lit-ry, 1945. 147 p. (Sovremennaia neftianaia tekhnika; posobie dlia povysheniia kvalifikatsii inzhenerov neftianaia tekhnika; posobie dlia povysheniia kvalifikatsii inzhenerov neftianoi promyshlennosti) (50-23440)

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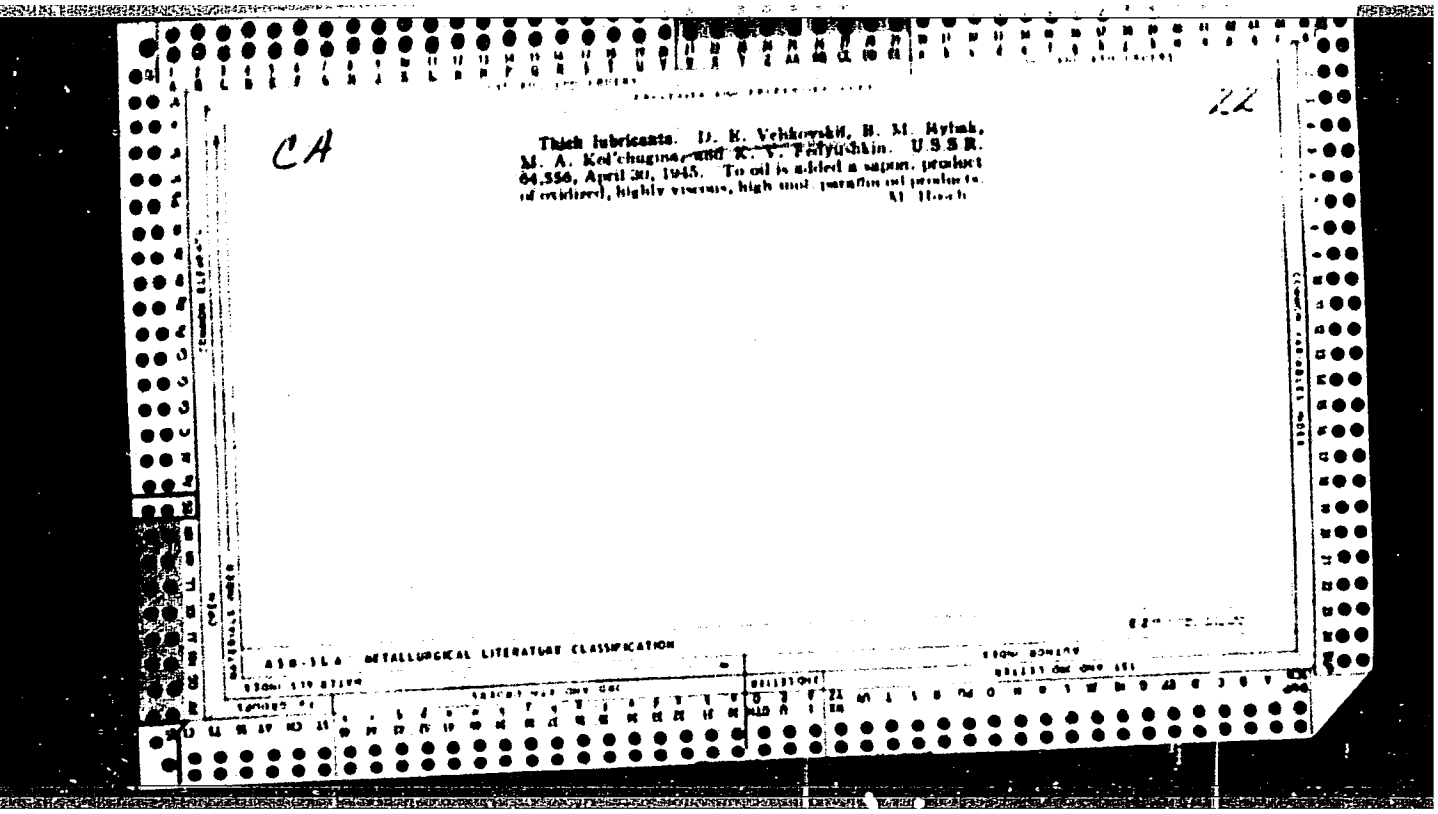
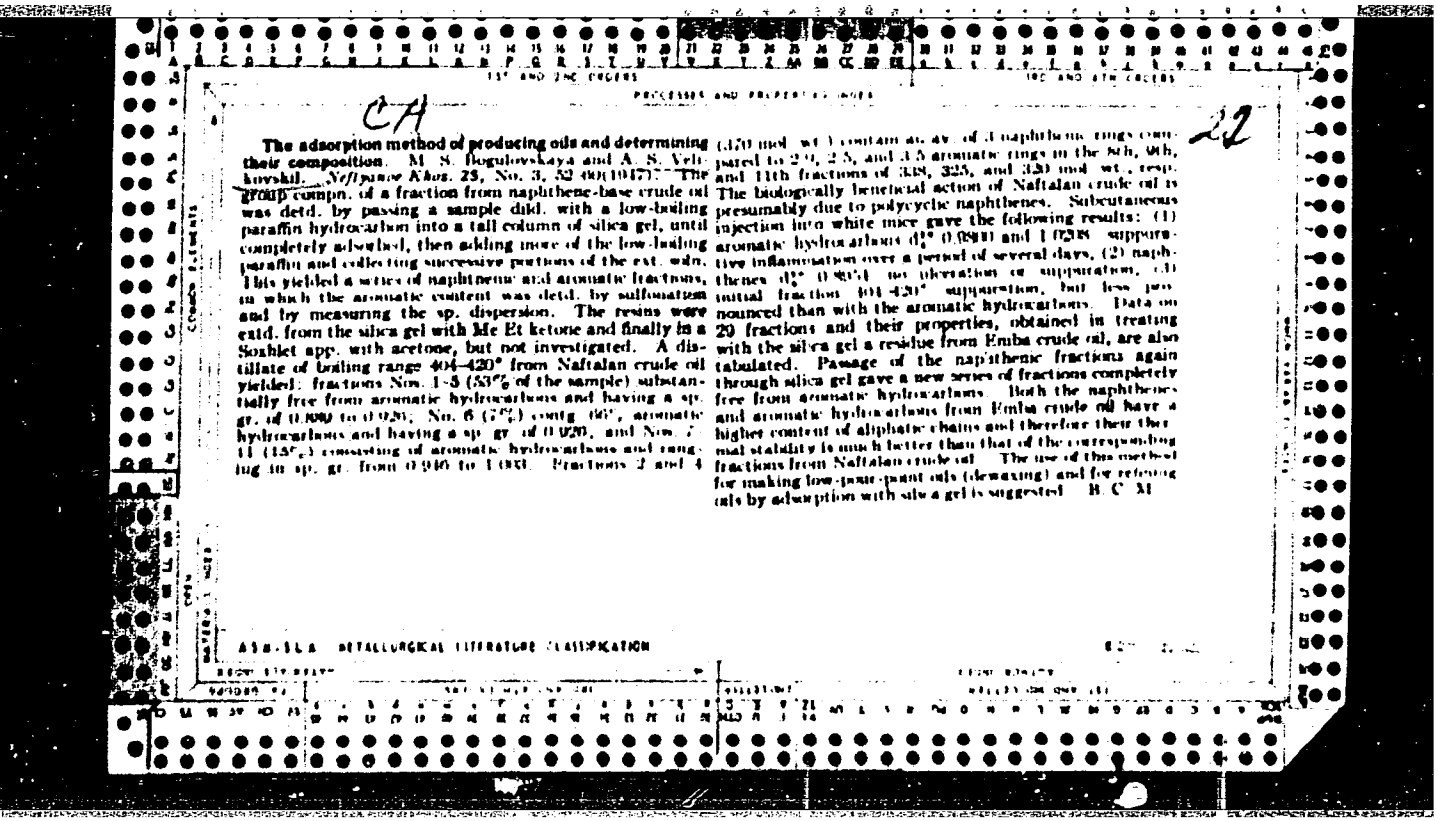


Br. Abs.

B1-2, Fuel; Gas; Tar; Mineral Oils

Formation of sulphur and sulphur compounds in crude oils. E. F. Rudakova and A. S. Velikovsky (*Neft. Khoz.*, 1947, No. 6, 49—54). —H_2S is passed at room temp. through layers of catalysts, *e.g.*, H_3PO_4, SiO_2 gel, and natural clays, impregnated with characteristic hydrocarbons (paraffins: n-$C_{16}H_{34}$, $CHMe_2 \cdot CH_2 \cdot CHMe_2$, and ligroin fraction of Grozny oil; olefines: polymers of C_3H_6 and C_5H_{10}; aromatics: C_6H_6 and PhMe). S compounds formed were analysed by the method of Faragher *et al.* (cf. B., 1928, 77). H_3PO_4 promotes the interaction of H_2S and olefines to give mercaptans and and other S compounds, particularly "residual S". Free S is not formed. Paraffins and aromatics are sulphurised in presence of SiO_2 gel and natural clay, giving mainly residual S. No interaction with H_2S in presence of H_3PO_4 occurs, paraffins giving cryst. S. In absence of hydrocarbons, H_2S when passed through the catalysts yields only traces of free S.

H. B.



CH

22

The adsorption method of producing oils and determining their composition. M. S. Bogulovskaya and A. S. Velikovskii. *Neftyanoe Khoz.* 25, No. 3, 52-60(1947).—The group compn. of a fraction from naphthene-base crude oil was detd. by passing a sample dild. with a low-boiling paraffin hydrocarbon into a tall column of silica gel, until completely adsorbed, then adding more of the low-boiling paraffin and collecting successive portions of the ext. with. This yielded a series of naphthenic and aromatic fractions, in which the aromatic content was detd. by sulfonation and by measuring the sp. dispersion. The resins were extd. from the silica gel with Me Et ketone and finally in a Soxhlet app. with acetone, but not investigated. A distillate of boiling range 406–420° from Naftalan crude oil yielded: fractions Nos. 1–5 (53% of the sample) substantially free from aromatic hydrocarbons and having a sp. gr. of 0.890 to 0.920; No. 6 (7%) contg. 60% aromatic hydrocarbons and having a sp. gr. of 0.920, and Nos. 7–11 (15%) consisting of aromatic hydrocarbons and ranging in sp. gr. from 0.940 to 1.003. Fractions 2 and 4 (170 mol. wt.) contain an av. of 1 naphthenic rings compared to 2.0, 2.5, and 3.5 aromatic rings in the 8th, 9th, and 11th fractions of 338, 325, and 330 mol. wt., resp. The biologically beneficial action of Naftalan crude oil is presumably due to polycyclic naphthenes. Subcutaneous injection into white mice gave the following results: (1) aromatic hydrocarbons d_4^{20} 0.9891 and 1.0208 suppurative inflammation over a period of several days, (2) naphthenes d_4^{20} 0.8954 no elevation of suppuration, but less pronounced than with the aromatic hydrocarbons. Data on 29 fractions and their properties, obtained in treating with the silica gel a residue from Emba crude oil, are also tabulated. Passage of the naphthenic fractions again through silica gel gave a new series of fractions completely free from aromatic hydrocarbons. Both the naphthenes and aromatic hydrocarbons from Emba crude oil have a higher content of aliphatic chains and therefore their thermal stability is much better than that of the corresponding fractions from Naftalan crude oil. The use of this method for making low-pour-point oils (dewaxing) and for refining oils by adsorption with silica gel is suggested. B. C. M.

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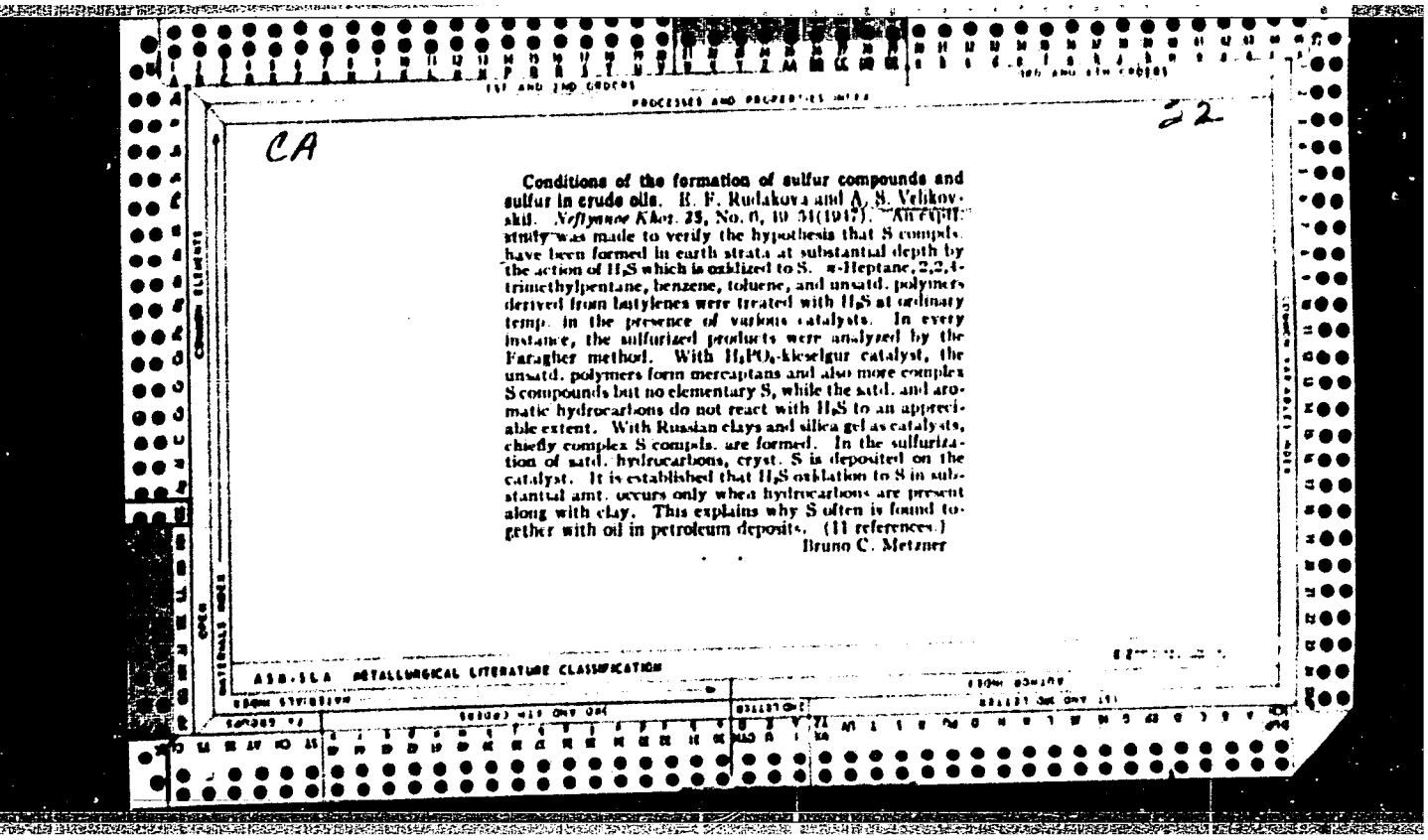


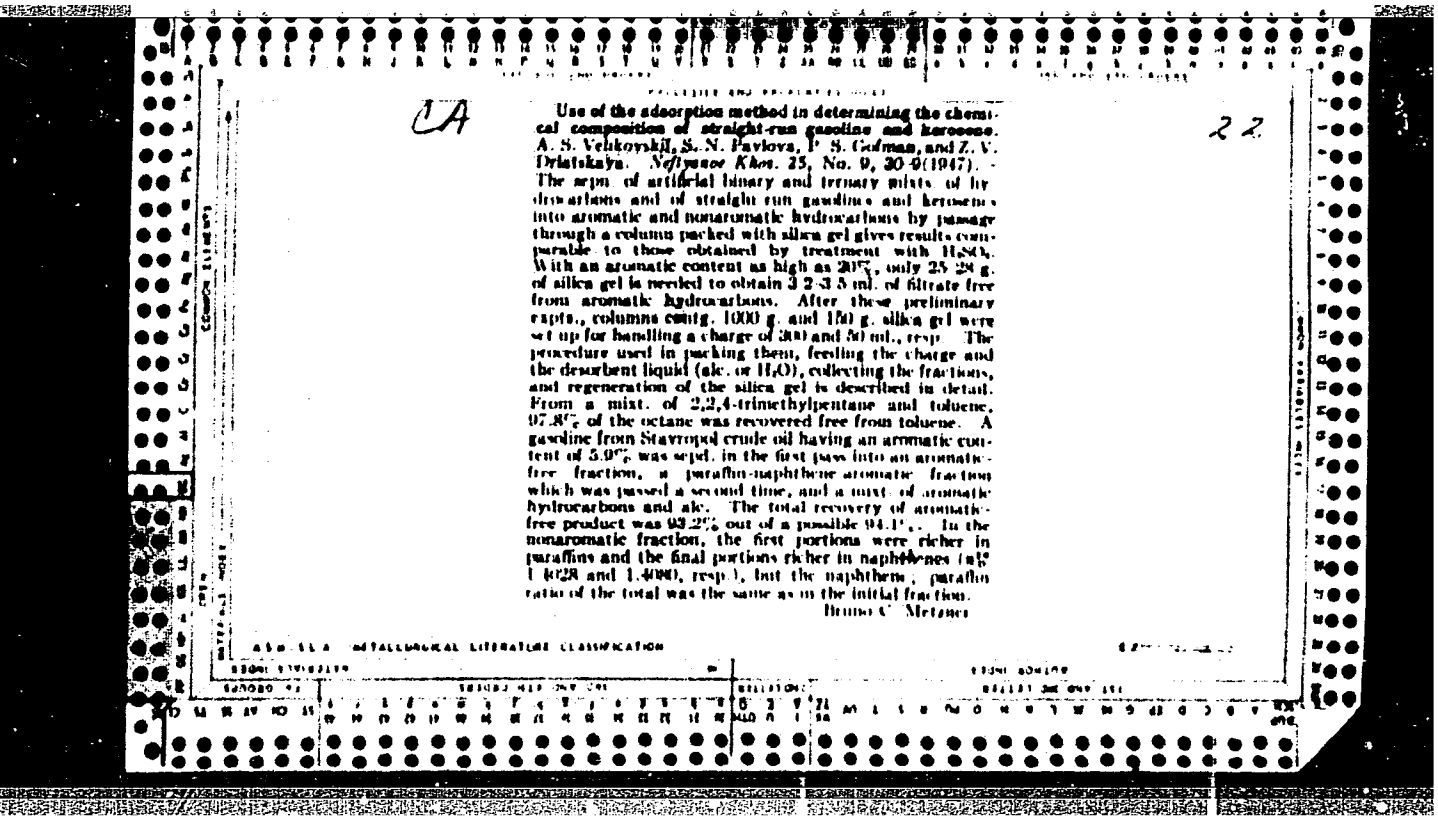
CA

32

Conditions of the formation of sulfur compounds and sulfur in crude oils. K. F. Rudakova and A. S. Velikovskii. *Neftyanoe Khoz.* **25**, No. 6, 49-54(1947). An investigation was made to verify the hypothesis that S compds. have been formed in earth strata at substantial depth by the action of H_2S which is oxidized to S. *n*-Heptane, 2,2,4-trimethylpentane, benzene, toluene, and unsatd. polymers derived from butylenes were treated with H_2S at ordinary temp. in the presence of various catalysts. In every instance, the sulfurized products were analyzed by the Faragher method. With H_3PO_4-kieselgur catalyst, the unsatd. polymers form mercaptans and also more complex S compounds but no elementary S, while the satd. and aromatic hydrocarbons do not react with H_2S to an appreciable extent. With Russian clays and silica gel as catalysts, chiefly complex S compds. are formed. In the sulfurization of satd. hydrocarbons, cryst. S is deposited on the catalyst. It is established that H_2S oxidation to S in substantial amt. occurs only when hydrocarbons are present along with clay. This explains why S often is found together with oil in petroleum deposits. (11 references.)

Bruno C. Metzner

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

22

Use of the adsorption method in determining the chemical composition of straight-run gasoline and kerosene. A. S. Velikovskii, S. N. Pavlova, P. S. Godman, and Z. V. Dristskaya. *Neftyanoe Khoz.* 25, No. 9, 30-9(1947). - The separation of artificial binary and ternary mixts. of hydrocarbons and of straight run gasolines and kerosenes into aromatic and nonaromatic hydrocarbons by passage through a column packed with silica gel gives results comparable to those obtained by treatment with H_2SO_4. With an aromatic content as high as 20%, only 25-28 g. of silica gel is needed to obtain 3.2-3.5 ml. of filtrate free from aromatic hydrocarbons. After these preliminary expts., columns contg. 1000 g. and 150 g. silica gel were set up for handling a charge of 300 and 50 ml., resp. The procedure used in packing them, feeding the charge and the desorbent liquid (alc. or H_2O), collecting the fractions, and regeneration of the silica gel is described in detail. From a mixt. of 2,2,4-trimethylpentane and toluene, 97.8% of the octane was recovered free from toluene. A gasoline from Stavropol crude oil having an aromatic content of 5.9% was sepd. in the first pass into an aromatic-free fraction, a paraffin-naphthene aromatic fraction which was passed a second time, and a mixt. of aromatic hydrocarbons and alc. The total recovery of aromatic-free product was 93.2% out of a possible 94.1%. In the nonaromatic fraction, the first portions were richer in paraffins and the final portions richer in naphthenes (n_D^{20} 1.4028 and 1.4080, resp.), but the naphthene : paraffin ratio of the total was the same as in the initial fraction.

Bruno C. Metzner

VELIKOVSKIY, A.S.

USSR

[illegible] IN DETERMINING CHEMICAL COMPOSITION OF [illegible] GASOLINE AND KEROSENE. [illegible] in Eng. [illegible] (Oil Ind., Moscow). 1947, vol. 25, (9) [illegible] pp.).

VELIKOVSKIY, A.S.

AID P - 1355

Subject : USSR/Chemistry

Card 1/1 Pub. 78 - 18/30

Authors : Kichkin, G. I and Velikovskiy, A. S.

Title : Influence of natural sulphur compounds on the oxidation of lubricating oils.

Periodical : Neft. khoz., v.32, #12, 60-63, D 1954

Abstract : The discussion concerns the anti-oxidation property of lubricating oils with and without sulphur compounds. The significance of aromatic hydrocarbon predominates over that of the sulphur compounds. The latter only supplement the anti-oxidizing action of aromatic hydrocarbon. 3 Russian references, (1940-1952). Two tables, 2 charts.

Institution: None

Submitted : No date

VELIKOVSKIY, A. S.

Subject	: USSR/Chemistry	AID P - 2745
Card 1/1	Pub. 78 - 15/22	
Authors	: Kichkin, G. I. and Velikovskiy, A. S.	
Title	: Oxidation in a thin layer of naphthenic and aromatic hydrocarbons forming from lubricating oils	
Periodical	: Neft. khoz., 33, 7, 71-75, Jl 1955	
Abstract	: The oxidizing characteristics of thin layer lubricating oil residues have been tested on K. K. Papok's apparatus and analysed. It has been found that naphtenic and monocyclic aromatic hydrocarbons are most vulnerable, whereas bi- and tricyclic aromatic hydrocarbons withstand oxidation much better and therefore can be used as admixtures to naphthenic hydrocarbons to dimish their oxidation characteristics. Tables. Total References: 4, 2 Russian (1946-1952)	
Institution	: None	
Submitted	: No date	

VELIKOVSKIY, A.S.; KOZLOV, A.L.

Precise measurement of pressure at the mouth of gas wells. Gaz. prom. no.6:1-5 Je '56. (MLRA 9:12)
(Gas, Natural)

VELIKOVSKIY, A.S.; YUSHKIN, V.V.

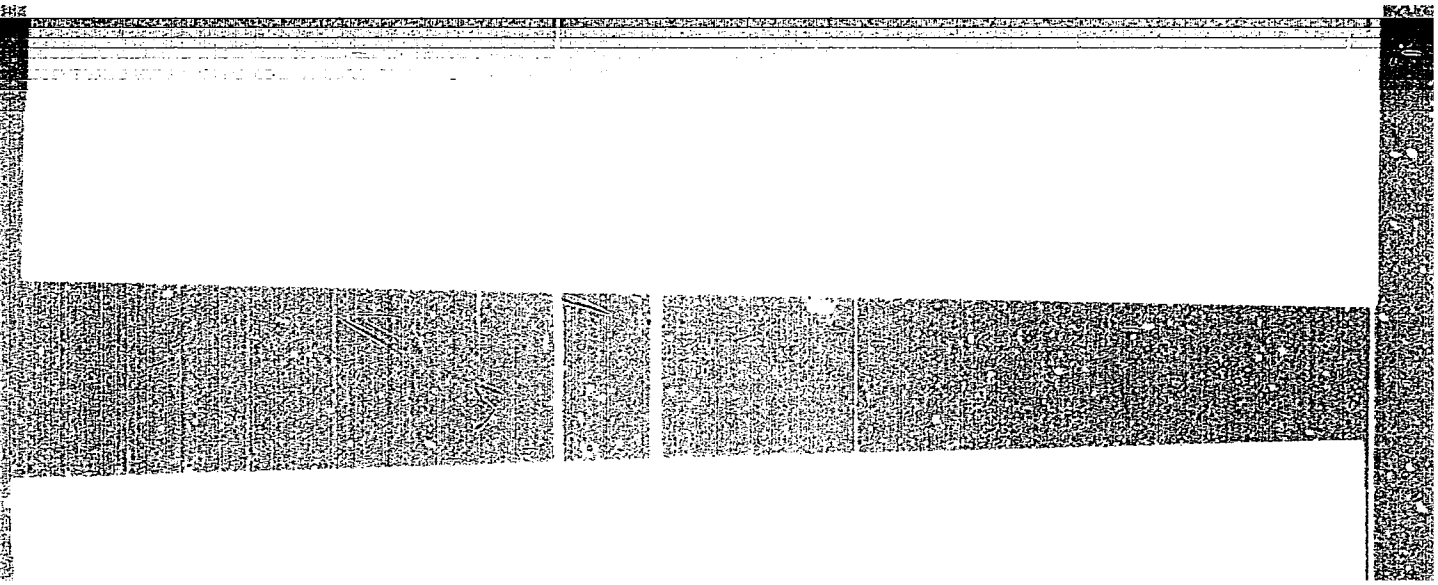
Gas condensate reservoirs. Gaz.prom.no.10:1-6 O '56. (MLRA 9:10)
(Gas, Natural)

USSR/Physical Chemistry. Thermodynamics, Thermochemistry, B-8
Equilibria, Physical-Chemical Analysis, Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14654

Abstract: (paraffins, arcmatic, naphthenic) in methane and of methane in these hydrocarbons up to the critical pressure was carried out.

Card 2/2



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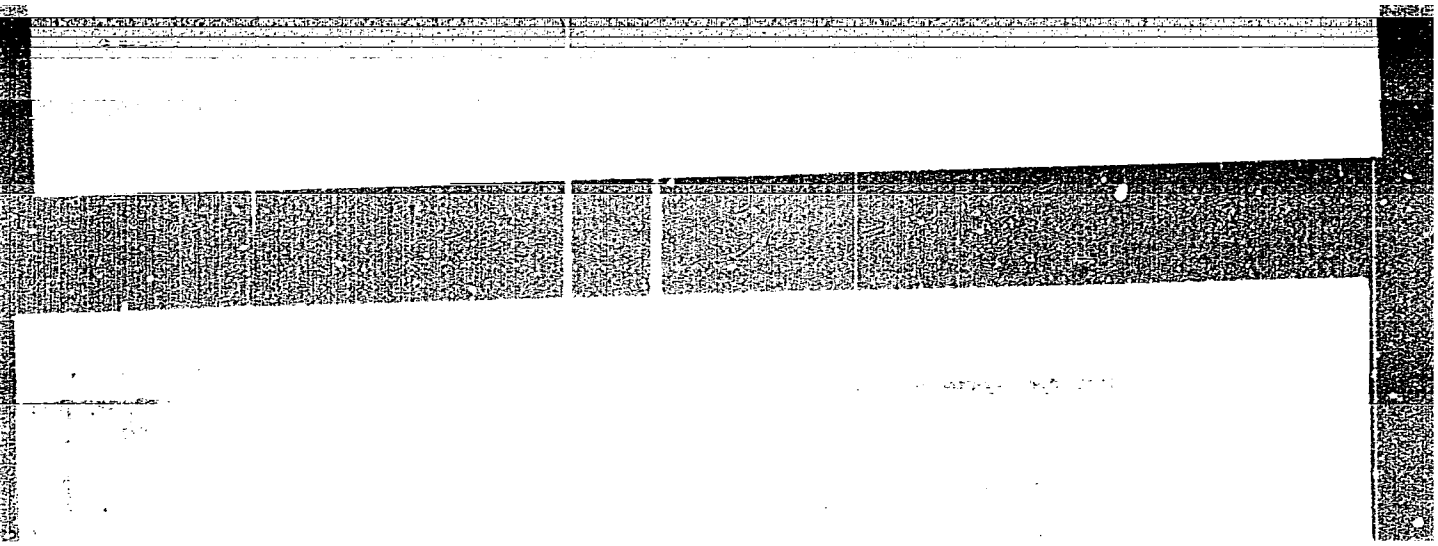

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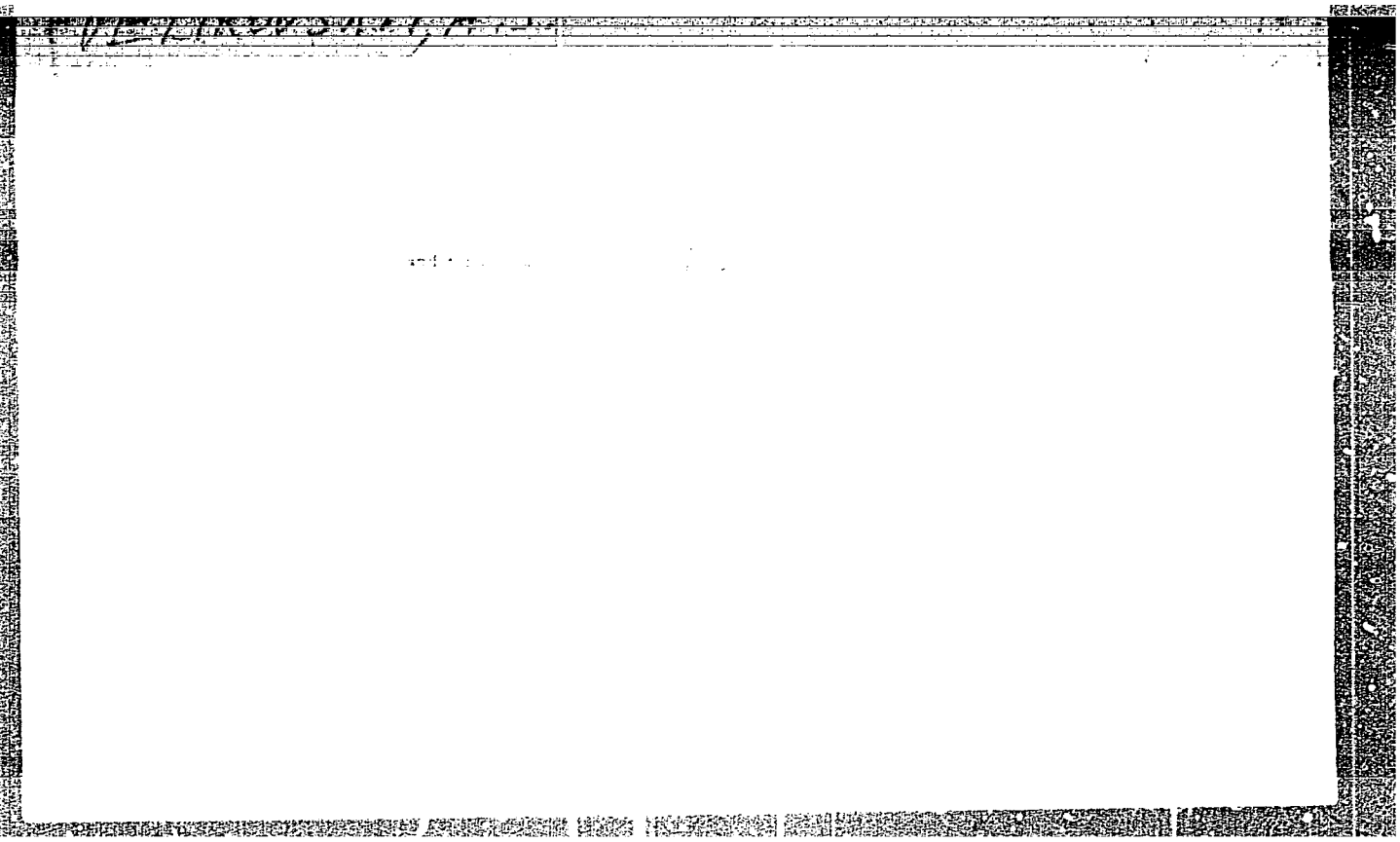

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VELIKOVSKIY, A.S.; YUSHKIN, V.V.

Condensate losses in gas-condensate pools. Gaz.prom.no.8:4-6 Ag '57. (MLRA 10:9)

(Condensate oil wells)

VELIKOVSKIY, A.S.; YUSHKIN, V.V.; KHUDYAKOV, O.F.; SAVVINA, Ya.D.; STEPANOVA, G.S.

Methods for studying gas-condensate fields. Trudy VNIIGAZ no.17:11-32 '62. (MIRA 15:12)

(Condensate oil wells)

VELIKOVSKIY, A.S.; STEPANOVA, G.S.

Negative volume of less volatile components in the mixtures of methane with various hydrocarbons. Trudy VNIIGAZ no.17:232-252 '62. (MIRA 15:12)

(Methane) (Hydrocarbons)

VELIKOVSKIY, A.S.; STEPANOVA, G.S.; KHUDYAKOV, O.F.

Conditions causing the penetration of condensates into gas pipeline. Trudy VNIIGAZ no.17:157-162 '62. (MIRA 15:12)
(Gas, Natural—Pipelines)

KHUDYAKOV, O.F.; VELIKOVSKIY, A.S.

Using linear models of a layer in the experimental study of gas recovery in the water-process. Trudy VNIIGAZ no.17:75-98 '62. (MIRA 15:12)
(Condensate oil wells)

SAVVINA, Ya.D.; VELIKOVSKIY, A.S.

Phase equilibria in triple hydrocarbon systems. Trudy VNIIGAZ no.17: 197-202 '62. (MIRA 15:12)
(Hydrocarbons) (Chemical equilibrium)

VELIKOVSKIY, A.S.; SAVVINA, Ya.D.

Constant factors in the composition of condensates. Trudy VNIIGAZ no.17:270-278 '62. (MIRA 15:12)

(Condensate oil wells)

SAVVINA, Ya.D.; VELIKOVSKIY, A.S.

Effect of the structure of hydrocarbons on their behavior in binary systems with methane. Trudy VNIIGAZ no.17:163-184 '62. (MIRA 15:12)
(Hydrocarbons) (Methane)

VELIKOVSKIY, A.S.; POKROVSKIY, K.V.; STEPANOVA, G.S.; RAZAMAT, M.S.

Study of thermodynamic conditions governing the separation of gas in a gas condensate field. Trudy VNIIGAZ no.17:108-114 '62.
(MIRA 15:12)

(Gas, Natural--Separation)

BEN'YAMINOVICH, O.A.; TABUNSHCHIKOVA, O.K.; VELIKOVSKIY, A.S.

Methods for calculating the process of the low-temperature separation of natural gas. Trudy VNIIGAZ no.17:115-124 '62. (MIRA 15:12)
(Gas, Natural—Separation)